Cancer Incidence and Mortality in Nebraska: 2002

May, 2005

The Nebraska Cancer Registry contains a wealth of information, not all of which can be included in this summary report:

What types of data are available?

- Demographic information: age at diagnosis, gender, race/ethnicity, county of residence
- Medical history: diagnosis, primary site, cell type, stage of disease at diagnosis
- Therapy: surgery, radiation therapy, chemotherapy, immunotherapy, hormone therapy
- Follow-Up: length of survival, cause of death

Who may request data from the Nebraska Cancer Registry?

- Medical Researchers
- Health Planners
- Marketing Researchers
- Health Care Facility Administrators
- Physicians
- Nurses
- Health Care Facility Cancer Committees
- Oncology Conference Planners and Speakers
- Patient Care Evaluators
- Pharmaceutical Companies
- Government Officials
- Concerned Citizens
- Students

How do I make a request?

Contact the Data Management Section at the
Nebraska Health and Human Services System
Department of Regulation and Licensure
P.O. Box 95007, Lincoln, NE 68509-5007
Phone 402/471-2241, Monday-Friday between 8 AM and 5 PM

Please note: To comply with confidentiality regulations, the NHHSS reserves the right to limit the amount and type of data that are released in response to a request.

NEBRASKA CANCER REGISTRY
2002 ANNUAL REPORT

Nebraska Health & Human Services System
Department of Regulation and Licensure
Richard A. Raymond, MD, Director

Public Health Assurance Division
Data Management Section

Kurt Weiss
Section Administrator

Carla Becker, RHIA
Health Data Manager

Victor Filos, MS
Statistical Analyst

Vickie Krueger
Administrative Assistant

Department of Finance and Support
Richard P. Nelson, Director

Financial Services Division
Research and Performance Measurement Unit

Norm Nelson, MS
Statistical Analyst

Bryan Rettig, MS
Program Analyst

This publication was supported by Cooperative Agreement Grant Number U55/CCU721962 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official view of CDC.

A special thank you to the Nebraska Cancer Registry Advisory Committee members who provided advice and assistance to the Nebraska Cancer Registry, and also reviewed this report.

Nebraska Cancer Registry Advisory Committee Members

James Anderson, PhD
Dept. of Preventive and Societal Medicine
University of Nebraska Medical Center

John Casey, MD
Lincoln, Nebraska

Ray Gaines, MD
Department of Surgery
Creighton University

Glen Hoffschneider
Nebraska Methodist Hospital

F. William Karrer, MD
Methodist Cancer Center

Donna Keller, RHIT
Nebraska Health System – Clarkson

Daniel Lydiatt, MD
Methodist Cancer Center

Mary Meysenburg
Nebraska Methodist Hospital

Judy Paradies, CTR
Nebraska Cancer Registry

DiAnna R. Schimek
Senator, Nebraska Unicameral

Shelly Spencer, CTR
St. Elizabeth Regional Medical Center

Alan G. Thorson, MD, FACS
Colon and Rectal Surgery
University of Nebraska Medical Center

Dennis Weisenburger, MD
Dept. of Pathology and Microbiology
University of Nebraska Medical Center

Nebraska Cancer Registry
Data Collection Staff

Judy Paradies, CTR
Coordinator

Suzanne McKinney, CTR
Abstractor

Mary Lien, CTR
Quality Assurance Coordinator

CONTENTS

INTRODUCTION

This publication represents the 16th annual statistical summary of the Nebraska Cancer Registry (NCR) since it began collecting data in 1987. The purpose of this report is to present the registry's most recent data to the citizens of the State of Nebraska. The majority of the data cover cancer diagnoses and cancer deaths that occurred between January 1, 2002, and December 31, 2002, as well as during the past five years (January 1, 1998-December 31, 2002).

The NCR was founded in 1986, when the Nebraska Unicameral authorized funding for a state cancer registry using a portion of funds generated by the state's cigarette tax. The establishment of the registry successfully combined the efforts of many Nebraska physicians, legislators, concerned citizens, and the Nebraska Medical Foundation, all of whom had worked for years toward this goal. The Nebraska Medical Foundation also helped to establish the registry with financial assistance. Since 1994, the NCR has received additional funding from the Centers for Disease Control and Prevention (CDC).

The Nebraska Health and Human Services System (NHHSS) currently manages the NCR, although data collection and editing are performed by the Nebraska Methodist Hospital of Omaha, under contract to the Nebraska Medical Foundation. Analysis of registry data and preparation of the annual statistical report are the responsibility of the NHHSS.

The purpose of the registry is to gather data that describe how many Nebraska residents are diagnosed with cancer, what types of cancer they have, what type of treatment they receive, and how long they survive after diagnosis. These data are extensively utilized, both inside and outside of the NHHSS. Within the agency, they are monitored closely from year to year to determine the trends that are developing, and to see how Nebraska's cancer experience compares to the rest of the nation. They are indispensable for investigating reports of possible cancer clusters. The NHHSS also uses these data to help with the planning and evaluation of programs in the area of cancer control. Outside of the NHHSS the registry has furnished information to many individuals, institutions, and organizations, such as the North American Association of Central Cancer Registries, the University of Nebraska Medical Center, the National Cancer Institute, the American Cancer Society (ACS), and CDC. The NCR also contributes data to several national cancer incidence databases (see Methodology section, page 3).

All individual records in the cancer registry are kept in strict confidence as prescribed by both state and federal law. The NCR follows all of the privacy safeguards in the Health Insurance Portability and Accountability Act (HIPAA), although some of the procedural requirements do not apply to the registry.

The NHHSS welcomes inquiries about cancer from the public for aggregate statistics or general information from the registry. To obtain cancer data or information about the registry not included in this report, please refer to the instructions provided inside the front cover. For more information about cancer control activities within the NHHSS, please call the Division of Health Services at 402/471-6038, or write to the Division at P.O. Box 95044, Lincoln, NE 68509-5044.

An electronic copy of this report is now available to Internet users via the NHHSS web site. The URL address is http://www.hhss.ne.gov/srd/srdindex.htm.

METHODOLOGY

Data Collection and Management

The NCR gathers data on Nebraska residents diagnosed and treated for invasive and in situ tumors. Benign tumors (although benign brain and other central nervous system tumors, have become reportable as of January 1, 2004), benign polyps, basal cell carcinomas of the skin, and in situ and localized squamous cell carcinomas of the skin are excluded from the registry. Information collected on each case includes the patient's name, address, birthdate, race, gender, and Social Security number; date of diagnosis; primary site of the cancer (coded according to the International Classification of Diseases for Oncology, 3rd edition [ICD-O-3]); stage of disease at diagnosis; facility where the initial diagnosis was made; basis of staging; method of diagnostic confirmation; and histological type (also classified according to the ICD-O-3). Follow-up information is gathered periodically on registered cases, and includes the date of last contact with the patient, status of disease, type of additional treatment, quality of survival; and, if death has occurred, the date and cause of death and the status of the cancer at the time of death. The registry gathers this information from every hospital in the state for all persons diagnosed with and/or treated for cancer. In addition, the registry includes Nebraska residents who are diagnosed with and/or treated for cancer out of state. NCR data also include cases diagnosed and/or treated at pathology laboratories, radiation therapy sites, physician's offices, and cases identified from death certificates.

Nebraska cancer mortality data are obtained from death certificates on file with the NHHSS. Mortality data are available for every Nebraska resident who dies from cancer, whether death occurs in or outside of Nebraska. The mortality data presented in this report are limited to those deaths where cancer is listed as the underlying (i.e., primary) cause of death. For deaths that occurred during 1999-2002, causes of death are coded according to the Tenth Edition of the International Classification of Disease (ICD-10). For deaths that occurred prior to 1999, causes of death are coded according to the Ninth Edition of the International Classification of Disease (ICD-9).

U.S. cancer incidence and mortality statistics are taken from the most recent data posted on the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program web site. The SEER Program compiles incidence data from a select group of cancer registries located throughout the United States, and these data provide estimates of national cancer incidence. The mortality data are compiled by the National Center for Health Statistics and include all cancer deaths occurring in the United States, with cancer deaths defined as only those deaths for which cancer is listed as the underlying cause.

Confidentiality

All data obtained by the NCR from the medical records of individual patients are held in strict confidence by the NHHSS. As specified in state statute, researchers may obtain case-specific and/or patient-identifiable information from the registry by submitting a written application that describes how the data will be used for scientific study. In situations where contact with a patient or patient's family is proposed, the applicant must substantiate the need for any such contact and submit approval from an Institutional Review Board. In addition, before any individual's name can be given to a researcher, the registry will obtain permission from the individual that they are willing to be a research subject. Upon favorable review by the NHHSS, the applicant must also agree to maintain the confidentiality and security of the data

throughout the course of the study, to destroy or return the registry data at the end of the study and to present material to the registry prior to publication to assure that no identifiable information is released.

Aggregate data (i.e., statistical information) from the registry are considered open to the public and are available upon request. Details on how to obtain such data are provided inside the front cover of this report.

Quality Assurance

The NCR and reporting facilities spend a great deal of time and energy to ensure that the information they gather is both accurate and complete. In recent years, these efforts have met with great success. For eight consecutive years (1995-2002), the NCR has met all of the criteria necessary to earn the Gold Standard of data quality awarded by the North American Association of Central Cancer Registries (NAACCR). These criteria include:

1) Completeness of case ascertainment – The registry must find at least 95% of the total number of cases that are estimated to have occurred.

2) Completeness of information – The proportion of registry cases missing information on age at diagnosis, gender, and county of residence must be no more than 2%, and the proportion missing information on race must be no more than 3%.

3) Data accuracy – Error rates based on edit checks of selected data items must be no greater than 1%.

4) Timeliness – All data for a single calendar year must be submitted to the NAACCR for review no more than 23 months after the year has ended.

Gold standard certification also requires that all cases pass strict edits and that the proportion of registry cases found solely through a review of death certificates must be no more than 3%. Lastly, the proportion of duplicate cases in the registry must be no more than one per 1,000.

Since the NCR has achieved the highest quality standards, its data are now included in several national cancer incidence databases. These databases include information from other cancer registries in the United States and Canada that meet the same data quality standards as the NCR. Nebraska cancer data are included in the databases listed below, all of which are accessible via the Internet:

1) *Cancer in North America* (http://www.naaccr.org/index.asp)

2) *United States Cancer Statistics* (http://www.cdc.gov/cancer/npcr/uscs/index.htm)

3) *Cancer Facts & Figures 2004* (http://www.cancer org/docroot/STT/stt_0.asp)

4) *Cancer Control PLANET* (http://cancercontrolplanet.cancer.gov/).

Definitions

Several technical terms are used in presenting the information in this report. The following definitions are provided here to assist the reader.

Incidence rate
An incidence rate is the number of new cases of a disease that occur within a specific population, divided by the size of the population. For example, if 10 residents of a county with 20,000 residents are diagnosed with colorectal cancer during a single year, then the incidence rate for that county for that year is .0005. Since cancer incidence rates are usually expressed per 100,000 population, this figure is then multiplied by 100,000 to yield a rate of 50 per 100,000 per year.

Mortality rate
A mortality rate is the number of deaths that occur within a specific population, divided by the size of the population. Only those persons whose death certificate lists cancer as the underlying (i.e., primary) cause of death are included in a cancer mortality rate. Like incidence rates, mortality rates are usually expressed as the number of deaths per 100,000 population.

Age-adjusted rate
Age-adjustment is a simple mathematical procedure that makes it possible to compare rates between populations that have different age distributions, and to compare rates within a single population over time. This edition of the NCR's annual report is the fourth in which all incidence and mortality rates were age-adjusted using the United States population in 2000 as the standard. Rates presented in pre-1999 editions of this report were age-adjusted using the U.S. population in 1970 as the standard. **For this reason, the rates presented in this report can not be compared to those presented in previous reports.**

Stage of Disease at Diagnosis

In situ
Cases diagnosed as in situ include malignant tumors that are confined to the cell group of origin, and have not penetrated the supporting structure of the organ on which they arose.

Invasive
Cases diagnosed as invasive include malignant tumors that, unlike in situ tumors, have at least penetrated the supporting structure of the organ where they originated, and may have spread further. Invasive tumors are subdivided into three categories:

Localized--A localized invasive tumor has not spread beyond the boundaries of the organ where it originated.

Regional--A regional invasive tumor has spread beyond the limits of the organ of origin, by direct extension to immediately adjacent organs or tissues and/or by spread to regional lymph nodes.

Distant--A distant invasive tumor has spread beyond its original (primary) site to distant parts of the body.

Data Analysis

Most of the incidence and mortality rates presented in this report were calculated for cancer diagnoses and deaths that occurred during 2002 and 1998-2002 combined. Incidence and mortality rates that are based on more than one year of data should be interpreted as an average annual rate. Rates for 2002 were calculated using the 2002 population estimates developed by the United States Bureau of the Census, while the 1998-2002 rates were calculated using the 2000 population counts taken by the Census Bureau. The rates in Tables 3 and 7, which are based on data for the years 1990-2002, were calculated using an average of the 1990 and 2000 Census counts for Nebraska's white, African-American, Native American, Asian/Pacific Islander, and Hispanic populations.

All of the data presented in this report are current through January 1, 2005. However, because some cases diagnosed during or even before 2002 may not yet have been reported to the registry, the incidence data presented in this report should be considered subject to change. **In addition, the incidence data reported in previous editions of this publication should no longer be considered complete.**

With the exception of bladder cancer, all of the site-specific incidence rates in this report were calculated with invasive cases alone to maintain comparability with statistics from the SEER Program and other cancer registries throughout the United States. For bladder cancer, incidence rates were calculated with invasive and in situ cases combined. All incidence and mortality rates in this report were calculated per 100,000 population, and were age-adjusted according to the age distribution of the population of the United States in 2000. Statewide rates were also calculated for males and females separately, and for both sexes combined. Rates based on five or fewer events are not presented due to their unreliability. Also, the number of cases for any county with five or fewer cases in a single year is not shown in order to reduce the possibility of identifying a specific person.

The transition from the ICD-O-2 to the ICD-O-3 (the coding systems used to classify cancer cases), which began for cases diagnosed on or after January 1, 2001, has also created some differences in the way that invasive cases are now defined. Certain types of cancer that were classified as non-invasive according to the ICD-O-2 are now classified as invasive by the ICD-O-3 (and vice versa), and some new codes have been added. The net effect has been an increase in the total number of invasive cases, confined mostly to an increase in the number of blood-borne cancers but with some reduction in the number of cancers of the ovary. In this report all 2001 and 2002 cancer cases are classified using the ICD-O-3 system. For cases diagnosed prior to 2001, their ICD-O-2 classification remains in effect, with the exception of ovarian cancers, which have been reclassified according to the ICD-O-3. For other cancers, the registry considers the available data insufficient to satisfactorily reclassify pre-2001 cases using the ICD-O-3 system.

In Tables 2, 6, and 9-17, differences between state and county rates were evaluated for statistical significance. Confidence intervals for each rate were calculated using the formula $CI = r \pm (RC \times SE)$, where CI = confidence interval, r = rate, RC = reliability coefficient, and SE = standard error. The standard error for each rate was determined by dividing the rate by the square root of the number of events (cancer diagnoses or deaths). The level of statistical significance used to compare rates (and determine reliability coefficients) was determined for each table using the Bonferroni method. This method divides the overall desired level of statistical significance (set at 5%) by the number of statistical comparisons being made. The number of comparisons varied by table since

county rates based on five or fewer cases were excluded. As a result, reliability coefficients also varied by table. A statistically significant difference exists and is indicated in those instances where the confidence intervals of a county rate and the state rate do not intersect.

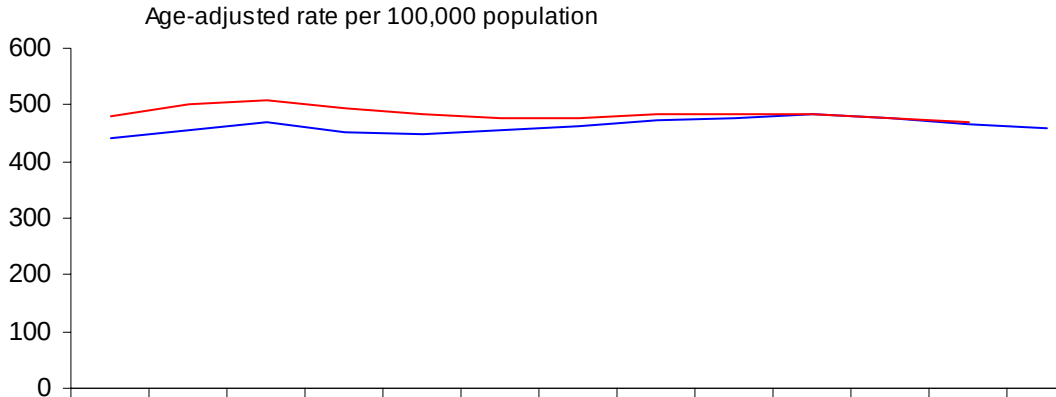
This edition of “Cancer Incidence and Mortality in Nebraska” includes two new tables that have not appeared in any previous report. These tables (#18 and 19) present cancer incidence and mortality statistics by place of residence for each of Nebraska’s local public health departments. The map on page 71 shows the area covered by each department. Differences between state and local incidence and mortality rates were evaluated for statistical significance according to the method described in the previous paragraph.

CANCER INCIDENCE IN NEBRASKA

The Nebraska Cancer Registry recorded 8,273 diagnoses of invasive cancer among Nebraska residents in 2002. This number includes 174 in situ bladder cancers, which as explained on page 5, are counted as invasive cases. The 2002 figure is a slight decrease from 2001, when 8,300 diagnoses (8,109 invasive, 191 in situ bladder) were reported. The 2002 data translate into an annual incidence rate of 460.4 cases per 100,000 population, compared to the 2001 rate of 464.8. By site of origin (i.e., primary site), cancers of the lung, breast, prostate, colon and rectum occurred the most frequently, accounting for more than half (55.2%) of the state's invasive diagnoses in 2002.

Table 1 presents the number and rate of invasive cases diagnosed among Nebraska residents during 2002 and 1998-2002, for all sites combined and for cancers of specific sites. National incidence rate estimates for the year 2001 are also presented. Comparison of state and national rates shows that, for all sites combined and for most individual sites, the incidence of cancer in Nebraska is the same as or lower than that experienced by Americans as a whole. Table 2 presents the number of invasive cancers diagnosed and the incidence rates for 2002 and 1998-2002 by county of residence, with comparable statewide and national rates included. Table 3 presents Nebraska incidence data by race and ethnicity for the years 1990-2002. Table 4 presents the number of invasive cancer cases diagnosed in Nebraska during 1998-2002 by age at diagnosis. The graph below presents the annual incidence rates for cancer (all sites) for Nebraska and the United States since 1990.

Cancer (All Sites)
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	439.9	454.8	468.3	451.8	449.2	456.0	460.9	471.5	476.4	482.0	475.0	464.8	460.4
United States	481.2	502.2	509.9	492.7	482.4	475.2	476.6	483.6	484.6	484.9	477.1	468.8	

TABLE 1: Cancer Incidence (Invasive Cases Only)
Number of Cases and Rates, By Site and Gender
Nebraska (2002 and 1998-2002) and US (2001)

SITE	NEBRASKA 2002						NEBRASKA 1998-2002						US 2001		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
All Sites	4,179	527.3	4,094	416.3	8,273	460.4	21,204	547.9	20,297	416.9	41,502	469.5	552.9	410.5	468.8
Oral Cavity & Pharynx	113	13.9	80	8.3	193	10.8	616	15.7	330	6.7	946	10.8	15.0	6.6	10.4
Esophagus	65	8.3	19	1.9	84	4.7	310	8.0	97	1.8	407	4.6	8.2	1.9	4.7
Stomach	58	7.4	37	3.6	95	5.2	322	8.4	191	3.6	513	5.7	10.9	5.0	7.5
Colon & Rectum (Colorectal)	513	65.2	495	47.2	1,008	55.1	2,667	69.8	2,628	50.2	5,295	58.6	60.6	44.8	51.8
Liver & Intra-hepatic Bile Duct	40	5.0	25	2.5	65	3.6	190	4.9	101	2.0	291	3.3	8.0	2.9	5.2
Pancreas	97	12.4	89	8.4	186	10.1	446	11.7	438	8.4	884	9.8	12.4	9.5	10.7
Lung & Bronchus	623	79.2	457	46.1	1,080	60.1	3,184	82.3	2,275	46.2	5,459	61.8	77.7	49.1	61.2
Melanoma of the Skin	152	18.9	128	14.4	280	16.1	680	17.2	575	12.9	1,255	14.5	23.1	15.6	18.7
Breast	12	1.6	1,294	134.2	1,306	73.0	48	1.3	6,354	133.9	6,402	73.0	1.3	134.8	73.4
Uterine Cervix	--	--	75	8.6	--	--	--	--	364	8.5	--	--	--	7.9	--

TABLE 1: Cancer Incidence (Invasive Cases Only) (Continued)
Number of Cases and Rates, By Site and Gender
Nebraska (2002 and 1998-2002) and US (2001)

SITE	NEBRASKA 2002						NEBRASKA 1998-2002						US 2001		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
Uterine Corpus & Unspecified (Endometrium)	--	--	248	26.0	--	--	--	--	1,278	27.1	--	--	--	24.7	--
Ovary	--	--	111	11.6	--	--	--	--	714	15.2	--	--	--	13.9	--
Prostate	1,176	148.3	--	--	--	--	6,328	163.8	--	--	--	--	176.8	--	--
Urinary Bladder	276	35.6	96	9.3	372	20.3	1,431	37.7	458	8.7	1,889	21.0	37.1	9.4	21.0
Brain & Other CNS	71	8.6	44	4.5	115	6.5	350	8.6	256	5.4	606	7.0	7.7	5.2	6.4
Kidney & Renal Pelvis	159	19.8	91	9.2	250	14.0	694	17.8	458	9.4	1,152	13.1	16.7	8.3	12.0
Non-Hodgkin Lymphoma	200	25.0	161	15.8	361	20.1	886	22.7	850	17.0	1,736	19.6	23.1	15.6	19.0
Multiple Myeloma	41	5.3	37	3.6	78	4.3	244	6.4	211	4.2	455	5.1	6.5	4.4	5.3
Leukemia	110	13.8	106	10.6	216	11.9	606	15.6	533	10.5	1,140	12.7	15.7	9.5	12.2

Total rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population
Gender-specific rates are expressed per 100,000 male or female population and are age-adjusted to the 2000 U.S. population.

TABLE 2: Cancer (All Sites) Incidence
Number of Cases and Rates, by County of Residence
Nebraska (2002 and 1998-2002) and US (2001 and 1997-2001)

	2001		1997-2001	
	# Cases	Rate	# Cases	Rate
US	NA	468.8	NA	479.7
	2002		1998-2002	
NEBRASKA	8,273	460.4	41,502	469.5
COUNTY				
ADAMS	163	454.2	766	430.3
ANTELOPE	47	469.6	214	418.0
ARTHUR	*	*	12	468.2
BANNER	*	*	13	284.2
BLAINE	*	*	12	317.4
BOONE	30	341.9	204	478.6
BOX BUTTE	68	506.2	330	498.1
BOYD	28	754.9	93	473.5
BROWN	24	447.2	115	422.5
BUFFALO	182	464.5	890	470.7
BURT	48	424.3	268	469.5
BUTLER	58	516.5	268	482.1
CASS	94	368.8	538	435.8
CEDAR	67	506.7	294	459.1
CHASE	22	375.5	122	408.7
CHERRY	23	291.5	148	388.0
CHEYENNE	55	481.6	279	475.7
CLAY	41	447.3	213	478.3
COLFAX	48	382.5	276	471.0
CUMING	64	449.8	265	▼ 359.5
CUSTER	84	487.6	389	459.8
DAKOTA	79	443.1	411	481.0
DAWES	36	378.4	202	422.0
DAWSON	123	482.2	546	429.2
DEUEL	14	457.2	70	438.7
DIXON	39	541.8	173	438.0
DODGE	237	543.3	1101	501.3
DOUGLAS	1,997	465.9	10,210	488.5
DUNDY	12	342.1	67	369.8
FILLMORE	36	378.1	208	441.2
FRANKLIN	20	396.7	138	510.0
FRONTIER	20	506.1	80	419.1
FURNAS	28	379.5	182	452.6
GAGE	127	423.9	668	436.1
GARDEN	15	379.6	97	549.0
GARFIELD	11	331.4	80	527.0
GOSPER	10	310.1	69	437.5
GRANT	*	*	16	385.3
GREELEY	18	397.5	100	470.7
HALL	275	477.7	1,380	489.3
HAMILTON	48	431.8	246	459.0
HARLAN	30	539.3	114	406.1
HAYES	--	--	15	▼ 198.1
HITCHCOCK	20	394.4	102	438.5
HOLT	68	434.3	380	482.8
HOOKER	7	551.5	34	494.0
HOWARD	42	510.0	182	451.5

TABLE 2: Cancer (All Sites) Incidence (Continued) Number of Cases and Rates, by County of Residence Nebraska (2002 and 1998-2002) and US (2001 and 1997-2001)

	2002		1998-2002	
	# Cases	Rate	# Cases	Rate
COUNTY				
JEFFERSON	49	398.9	245	392.4
JOHNSON	36	567.3	159	458.5
KEARNEY	28	340.2	151	▼356.5
KEITH	60	495.2	272	459.0
KEYA PAHA	*	*	18	253.3
KIMBALL	22	373.5	148	487.0
KNOX	64	459.7	333	463.2
LANCASTER	1,052	466.9	5,215	483.0
LINCOLN	175	440.8	933	477.3
LOGAN	*	*	17	350.4
LOUP	*	*	12	262.3
McPHERSON	*	*	18	501.6
MADISON	167	442.5	963	516.2
MERRICK	47	442.6	243	470.9
MORRILL	36	529.6	162	475.8
NANCE	15	287.0	138	499.6
NEMAHA	30	303.4	214	445.1
NUCKOLLS	42	556.2	199	469.9
OTOE	110	546.9	471	479.1
PAWNEE	18	326.8	124	430.8
PERKINS	28	703.9	93	455.1
PHELPS	57	473.0	262	424.3
PIERCE	33	333.3	202	412.9
PLATTE	132	406.5	790	480.0
POLK	33	403.2	150	376.5
RED WILLOW	63	399.0	352	466.1
RICHARDSON	80	631.5	347	512.4
ROCK	11	426.7	51	386.9
SALINE	81	526.3	395	486.7
SARPY	442	483.3	2,109	501.9
SAUNDERS	98	424.2	476	419.2
SCOTTS BLUFF	241	524.4	1,038	458.5
SEWARD	89	467.1	429	467.0
SHERIDAN	55	638.8	210	466.0
SHERMAN	38	807.1	121	494.6
SIOUX	--	--	12	▼136.3
STANTON	17	246.5	117	▼346.7
THAYER	34	382.5	216	449.5
THOMAS	*	*	19	358.9
THURSTON	36	521.5	149	441.3
VALLEY	19	260.4	126	▼345.5
WASHINGTON	88	440.7	438	451.9
WAYNE	43	451.6	202	412.1
WEBSTER	31	484.1	153	459.3
WHEELER	6	561.2	31	564.0
YORK	72	402.0	391	435.8

NA = not available
*Number in a given year and rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 3: Cancer Incidence (Invasive Cases Only)
Number of Cases and Rates, All Sites and Top Ten Sites, By Race and Ethnicity
Nebraska (1990-2002)

	White			African-American			Native American			Asian/Pacific Islander			Hispanic		
	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate
	All	97,970	458.7	All	2,539	510.7	All	314	326.5	All	317	263.7	All	711	205.0
Rank															
1	Prostate	15,918	171.0	Lung & Bronchus	457	93.8	Lung & Bronchus	40	43.4	Breast	37	33.1	Colon & Rectum (Colorectal)	90	31.4
2	Breast	14,756	71.0	Prostate	413	214.9	Colon & Rectum (Colorectal)	40	43.0	Colon & Rectum (Colorectal)	33	33.3	Breast	88	24.7
3	Lung & Bronchus	13,057	60.8	Breast	368	70.2	Prostate	39	109.3	Lung & Bronchus	32	32.3	Prostate	69	53.7
4	Colon & Rectum (Colorectal)	12,838	58.6	Colon & Rectum (Colorectal)	279	60.1	Breast	34	31.4	Uterine Cervix	27	28.1	Lung & Bronchus	66	21.9
5	Urinary Bladder	4,510	20.6	Non-Hodgkin Lymphoma	94	18.4	Kidney & Renal Pelvis	23	22.6	Prostate	21	63.8	Leukemia	43	7.0
6	Non-Hodgkin Lymphoma	3,967	18.6	Kidney & Renal Pelvis	76	14.2	Oral Cavity & Pharynx	13	13.3	Liver & Intrahepatic Bile Duct	19	17.9	Non-Hodgkin Lymphoma	38	10.5
7	Uterine Corpus & Unspecified (Endometrium)	3,058	26.7	Pancreas	67	15.2	Liver & Intrahepatic Bile Duct	9	9.1	Non-Hodgkin Lymphoma	16	11.3	Uterine Cervix	31	11.9
8	Leukemia	2,649	12.3	Oral Cavity & Pharynx	57	10.5	Ovary	8	15.4	Thyroid	15	8.4	Uterine Corpus & Unspecified (Endometrium)	25	13.6
9	Kidney & Renal Pelvis	2,544	12.1	Stomach	56	11.9	Uterine Cervix	8	12.1	Leukemia	13	5.1	Kidney & Renal Pelvis	24	7.5
10	Melanoma of the Skin	2,432	12.0	Multiple Myeloma	54	11.8	Non-Hodgkin Lymphoma	8	9.5	Pancreas	11	9.7	Urinary Bladder	22	7.1
							Stomach	8	9.3	Oral Cavity & Pharynx	11	5.7			

Excluding gender-specific sites, all rates are expressed per 100,000 population, and are age-adjusted to the 2000 U.S. population.
Rates for gender-specific sites (prostate, cervix, endometrium, ovary) are expressed per 100,000 male or female population, and are age-adjusted to the 2000 U.S. population.

TABLE 4: Cancer Incidence (Invasive Cases Only)
Number of Cases and Percentage Distribution, By Site and Age at Diagnosis, Nebraska (1998-2002)

	0-17 Yrs.		18-44 Yrs.		45-64 Yrs.		65 Yrs and Older		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Sites	313	0.8	3,190	7.7	12,105	29.2	25,894	62.4	41,502	100.0
Oral Cavity & Pharynx	7	0.7	80	8.5	359	37.9	500	52.9	946	100.0
Esophagus	0	0.0	10	2.5	119	29.2	278	68.3	407	100.0
Stomach	0	0.0	24	4.7	113	22.0	376	73.3	513	100.0
Colon & Rectum (Colorectal)	0	0.0	178	3.4	1,237	23.4	3,880	73.3	5,295	100.0
Liver & Intrahepatic Bile Duct	4	1.4	14	4.8	88	30.2	185	63.6	291	100.0
Pancreas	0	0.0	29	3.3	196	22.2	659	74.5	884	100.0
Lung & Bronchus	0	0.0	128	2.3	1,467	26.9	3,864	70.8	5,459	100.0
Melanoma of the Skin	10	0.8	343	27.3	416	33.1	486	38.7	1,255	100.0
Breast	0	0.0	598	9.3	2,422	37.8	3,382	52.8	6,402	100.0
Uterine Cervix	0	0.0	168	46.2	127	34.9	69	19.0	364	100.0
Uterine Corpus & Unspecified (Endometrium)	0	0.0	91	7.1	495	38.7	692	54.1	1,278	100.0
Ovary	5	0.7	110	15.4	233	32.6	366	51.3	714	100.0
Prostate	1	<0.1	23	0.4	1,839	29.1	4,465	70.6	6,328	100.0
Urinary Bladder	1	<0.1	56	3.0	411	21.8	1,421	75.2	1,889	100.0
Brain & Other CNS	69	11.4	123	20.3	167	27.6	247	40.8	606	100.0
Kidney & Renal Pelvis	15	1.3	83	7.2	385	33.4	669	58.1	1,152	100.0
Non-Hodgkin Lymphoma	15	0.9	174	10.0	464	26.7	1,083	62.4	1,736	100.0
Multiple Myeloma	0	0.0	12	2.6	114	25.1	329	72.3	455	100.0
Leukemia	78	6.8	93	8.2	246	21.6	723	63.4	1,140	100.0

NOTE: Due to rounding, some percentages may not sum to 100.0

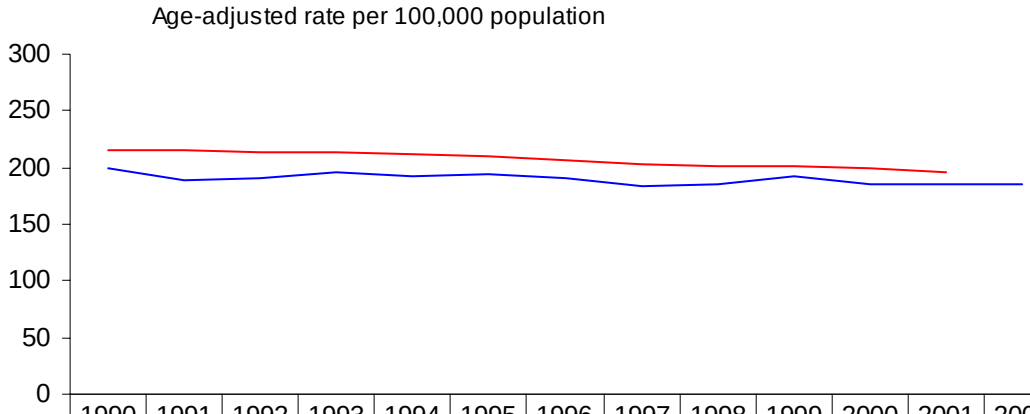
This page intentionally left blank.

CANCER MORTALITY IN NEBRASKA

In 2002, 3,429 Nebraska residents died from cancer, a number that translates into a rate of 185.8 cancer deaths per 100,000 population. These figures represent a slight increase from the state's 2001 figures of 3,389 (cancer deaths) and 185.0 (cancer mortality rate). Cancer was the second leading cause of mortality in Nebraska in 2002, exceeded only by heart disease, and accounted for more than one of every five (21.8%) deaths. By body site, cancers of the lung, breast, prostate, colon and rectum were the most frequently mentioned, accounting for 1,733 (50.5%) of Nebraska's cancer deaths in 2002.

Table 5 presents the number and rate of cancer deaths that occurred among Nebraska residents during 2002 and 1998-2002, for all sites combined and for specific sites. U.S. cancer mortality rates for 2001 are also included. Comparison of state and national rates shows that, for most body sites and for all sites combined, cancer mortality is about the same as or lower in Nebraska than it is in the United States as a whole. Table 6 presents the number of cancer deaths and the mortality rates for 2002 and 1998-2002 by county of residence, with comparable statewide and national rates included. Table 7 presents Nebraska cancer mortality data by race and ethnicity for the years 1990-2002. Table 8 presents the number of Nebraska cancer deaths that occurred during 1998-2002 by age at death. The graph below shows the annual mortality rates for cancer for Nebraska and the United States since 1990.

Cancer (All Sites)
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	199.4	188.9	190.4	195.5	191.9	194.3	189.8	184.3	186.0	191.6	185.6	185.1	185.8
United States	214.9	215.1	213.5	213.4	211.7	209.9	207.0	203.6	200.8	200.7	198.6	195.6	

TABLE 5: Cancer Mortality
Number of Deaths and Rates, By Site and Gender
Nebraska (2002 and 1998-2002) and US (2001)

SITE	NEBRASKA 2002						NEBRASKA 1998-2002						US 2001		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
All Sites	1,746	225.2	1,683	158.8	3,429	185.8	8,667	229.3	8,218	157.2	16,885	186.0	243.5	164.1	195.6
Oral Cavity & Pharynx	23	2.8	13	1.2	36	2.0	110	2.9	70	1.3	180	2.0	4.1	1.6	2.7
Esophagus	60	7.6	21	2.1	81	4.5	294	7.7	85	1.6	379	4.2	7.8	1.8	4.4
Stomach	25	3.3	13	1.2	38	2.0	146	3.8	118	2.2	264	2.9	6.1	3.1	4.3
Colon & Rectum (Colorectal)	193	24.8	214	19.2	407	21.7	950	25.3	1,048	18.8	1,998	21.6	24.2	17.0	20.0
Liver & Intra-hepatic Bile Duct	41	5.2	24	2.1	65	3.5	160	4.1	114	2.2	274	3.1	6.9	3.0	4.7
Pancreas	81	10.6	95	8.7	176	9.4	440	11.6	460	8.5	900	9.9	12.1	9.3	10.5
Lung & Bronchus	523	66.8	365	35.8	888	49.1	2,686	70.1	1,786	35.6	4,472	50.2	75.1	40.9	55.2
Melanoma of the Skin	39	4.9	15	1.7	54	3.1	172	4.4	77	1.6	249	2.8	3.9	1.7	2.7
Breast	4	0.5	251	24.2	255	13.8	14	0.4	1,236	24.2	1,250	13.8	0.3	25.9	14.7
Uterine Cervix	--	--	25	2.8	--	--	--	--	115	2.5	--	--	--	2.7	--

TABLE 5: Cancer Mortality
(Continued)
Number of Deaths and Rates, By Site and Gender
Nebraska (2002 and 1998-2002) and US (2001)

SITE	NEBRASKA 2002						NEBRASKA 1998-2002						US 2001		
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE	FEMALE	TOTAL
	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	NO.	RATE	RATE	RATE	RATE
Uterine Corpus & Unspecified (Endometrium)	--	--	42	4.2	--	--	--	--	226	4.3	--	--	--	4.2	--
Ovary	--	--	90	8.9	--	--	--	--	435	8.6	--	--	--	9.0	--
Prostate	183	24.8	--	--	--	--	974	27.3	--	--	--	--	29.1	--	--
Urinary Bladder	52	6.8	23	1.8	75	3.9	246	6.7	109	1.8	355	3.8	7.5	2.2	4.3
Brain & Other CNS	48	6.0	41	4.1	89	5.0	238	6.0	218	4.5	456	5.2	5.5	3.6	4.4
Kidney & Renal Pelvis	55	7.0	47	4.3	102	5.5	258	6.7	160	3.0	418	4.6	6.2	2.8	4.3
Non-Hodgkin Lymphoma	78	10.0	67	6.2	145	7.9	385	10.2	384	7.1	769	8.4	9.9	6.4	7.9
Multiple Myeloma	43	5.5	33	3.1	76	4.1	186	5.0	159	3.0	345	3.8	4.7	3.2	3.8
Leukemia	77	10.1	67	5.8	144	7.6	391	10.4	350	6.3	741	8.0	10.1	5.9	7.6

Total rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population
Gender-specific rates are expressed per 100,000 male or female population and are age-adjusted to the 2000 U.S. population.

TABLE 6: Cancer (All Sites) Mortality
Number of Deaths and Rates, by County of Residence
Nebraska (2002 and 1998-2002) and US (2001 and 1997-2001)

	2001		1997-2001	
	# Deaths	Rate	# Deaths	Rate
US	NA	195.6	NA	199.8
	2002		1998-2002	
NEBRASKA	3,429	185.8	16,885	186.0
COUNTY				
ADAMS	72	190.6	327	174.4
ANTELOPE	20	189.7	102	184.6
ARTHUR	*	*	3	**
BANNER	--	--	3	**
BLAINE	--	--	5	**
BOONE	25	271.2	84	170.4
BOX BUTTE	29	213.4	140	206.7
BOYD	8	178.9	36	171.0
BROWN	8	135.3	46	147.2
BUFFALO	70	172.5	341	176.6
BURT	34	278.7	130	207.1
BUTLER	23	195.9	120	208.5
CASS	34	136.2	206	168.6
CEDAR	29	191.9	103	147.2
CHASE	12	184.0	57	178.2
CHERRY	11	135.1	72	177.5
CHEYENNE	19	158.5	124	196.1
CLAY	21	232.8	92	199.5
COLFAX	24	169.3	109	169.0
CUMING	22	146.8	116	149.9
CUSTER	34	175.6	161	174.3
DAKOTA	31	175.8	180	215.8
DAWES	16	157.0	84	162.0
DAWSON	48	181.0	248	190.1
DEUEL	7	232.9	30	166.7
DIXON	15	174.2	78	179.1
DODGE	80	168.2	443	187.8
DOUGLAS	847	201.3	4,255	▲ 206.7
DUNDY	*	*	29	152.2
FILLMORE	17	153.8	98	189.3
FRANKLIN	14	249.6	67	217.0
FRONTIER	10	272.3	29	145.7
FURNAS	13	132.8	80	168.3
GAGE	57	167.6	299	180.0
GARDEN	*	*	36	175.9
GARFIELD	6	127.4	30	149.0
GOSPER	6	181.2	28	168.8
GRANT	*	*	2	**
GREELEY	7	119.9	37	157.9
HALL	82	138.6	507	174.9
HAMILTON	24	207.7	115	203.4
HARLAN	10	171.5	52	166.8
HAYES	*	*	12	160.4
HITCHCOCK	10	192.9	50	203.5
HOLT	31	190.8	143	169.7
HOOKER	*	*	9	104.4
HOWARD	15	168.5	77	174.6

TABLE 6: Cancer (All Sites) Mortality (Continued) Number of Deaths and Rates, by County of Residence Nebraska (2002 and 1998-2002) and US (2001 and 1997-2001)

	2002		1998-2002	
	# Deaths	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	24	188.7	118	172.0
JOHNSON	12	154.7	61	161.5
KEARNEY	12	137.2	79	182.4
KEITH	30	240.9	124	203.4
KEYA PAHA	*	*	14	174.6
KIMBALL	16	241.9	55	173.4
KNOX	34	221.1	137	172.5
LANCASTER	422	190.4	2,022	190.2
LINCOLN	78	188.8	396	195.6
LOGAN	*	*	12	242.3
LOUP	*	*	9	195.7
McPHERSON	*	*	6	156.4
MADISON	73	183.5	349	178.7
MERRICK	29	263.2	87	159.0
MORRILL	11	152.0	55	159.8
NANCE	6	106.0	53	186.8
NEMAHA	18	178.0	97	188.7
NUCKOLLS	24	249.0	106	227.6
OTOE	47	229.7	202	197.8
PAWNEE	12	176.2	50	148.7
PERKINS	7	159.4	41	192.3
PHELPS	21	143.0	111	164.6
PIERCE	17	175.9	85	170.6
PLATTE	61	186.7	302	177.6
POLK	16	171.2	70	159.0
RED WILLOW	20	131.8	153	191.3
RICHARDSON	41	303.1	169	231.9
ROCK	*	*	19	118.7
SALINE	28	154.6	148	167.9
SARPY	147	181.0	711	189.9
SAUNDERS	42	178.6	194	164.8
SCOTTS BLUFF	97	202.0	416	175.4
SEWARD	40	197.1	179	184.4
SHERIDAN	25	263.4	89	177.7
SHERMAN	10	175.5	39	140.3
SIOUX	*	*	9	99.6
STANTON	11	163.4	60	176.2
THAYER	11	96.1	92	162.9
THOMAS	*	*	8	137.5
THURSTON	19	270.8	66	190.4
VALLEY	9	95.1	48	▼113.6
WASHINGTON	36	176.5	188	190.8
WAYNE	16	144.6	62	▼116.8
WEBSTER	10	147.0	48	122.9
WHEELER	*	*	13	226.9
YORK	27	136.1	138	140.8

NA = not available
*Number in a given year and rate not shown if based on five or fewer events.
**Rate for combined years not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate
▲ county rate significantly higher than the state rate

TABLE 7: Cancer Mortality
Number of Deaths and Rates, All Sites and Top Ten Sites, By Race and Ethnicity
Nebraska (1990-2002)

	White			African-American			Native American			Asian/Pacific Islander			Hispanic		
	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate	Site	Number	Rate
	All	41,531	189.1	All	1,241	265.8	All	175	207.5	All	119	122.4	All	343	117.6
Rank															
1	Lung & Bronchus	10,842	50.0	Lung & Bronchus	375	78.5	Lung & Bronchus	49	58.2	Lung & Bronchus	25	27.8	Lung & Bronchus	63	22.7
2	Colon & Rectum (Colorectal)	5,072	22.7	Colon & Rectum (Colorectal)	124	27.9	Colon & Rectum (Colorectal)	16	19.4	Pancreas	14	14.0	Colon & Rectum (Colorectal)	41	15.0
3	Breast	3,383	15.7	Breast	111	22.4	Breast	10	10.8	Liver & Intrahepatic Bile Duct	11	8.3	Liver & Intrahepatic Bile Duct	22	7.9
4	Prostate	2,597	30.2	Prostate	81	56.1	Non-Hodgkin Lymphoma	9	9.5	Colon & Rectum (Colorectal)	9	8.0	Stomach	21	7.5
5	Pancreas	2,174	9.8	Pancreas	63	14.6	Pancreas	8	10.4	Stomach	7	5.9	Breast	21	5.6
6	Non-Hodgkin Lymphoma	1,883	8.5	Stomach	46	9.7	Kidney & Renal Pelvis	8	8.5	Non-Hodgkin Lymphoma	6	7.5	Leukemia	17	3.9
7	Leukemia	1,732	7.8	Non-Hodgkin Lymphoma	41	8.8	Ovary	6	12.7	Breast	6	5.6	Pancreas	15	5.8
8	Brain & Other CNS	1,127	5.4	Leukemia	40	8.3	Liver & Intrahepatic Bile Duct	5	*	Multiple Myeloma	5	*	Non-Hodgkin Lymphoma	15	5.7
9	Ovary	1,086	8.8	Esophagus	35	7.4	Prostate	5	*	Brain & Other CNS	4	*	Uterine Cervix	11	5.9
10	Kidney & Renal Pelvis	990	4.6	Liver & Intrahepatic Bile Duct	34	6.6	Uterine Cervix	5	*	Leukemia	3	*	Kidney & Renal Pelvis	10	2.8
							Stomach	5	*	Uterine Cervix	3	*			

Excluding gender-specific sites, all rates are expressed per 100,000 population, and are age-adjusted to the 2000 U.S. population.
Rates for gender-specific sites (prostate, cervix, endometrium, ovary) are expressed per 100,000 male or female population, and are age-adjusted to the 2000 U.S. population.
* Rate not shown if based on five or fewer deaths

TABLE 8: Cancer Mortality
Number of Deaths and Percentage Distribution, By Site and Age at Diagnosis, Nebraska (1998-2002)

	0-17 Yrs.		18-44 Yrs.		45-64 Yrs.		65 Yrs and Older		TOTAL	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Sites	49	0.3	581	3.4	3,583	21.2	12,672	75.0	16,885	100.0
Oral Cavity & Pharynx	0	0.0	8	4.4	46	25.6	126	70.0	180	100.0
Esophagus	0	0.0	6	1.6	97	25.6	276	72.8	379	100.0
Stomach	0	0.0	11	4.2	46	17.4	207	78.4	264	100.0
Colon & Rectum (Colorectal)	0	0.0	48	2.4	362	18.1	1,588	79.5	1,998	100.0
Liver & Intrahepatic Bile Duct	0	0.0	10	3.6	75	27.4	189	69.0	274	100.0
Pancreas	0	0.0	19	2.1	164	18.2	717	79.7	900	100.0
Lung & Bronchus	0	0.0	93	2.1	1,063	23.8	3,316	74.2	4,472	100.0
Melanoma of the Skin	0	0.0	29	11.6	78	31.3	142	57.0	249	100.0
Breast	0	0.0	79	6.3	352	28.2	819	65.5	1,250	100.0
Uterine Cervix	0	0.0	28	24.3	42	36.5	45	39.1	115	100.0
Uterine Corpus & Unspecified (Endometrium)	0	0.0	7	3.1	45	19.9	174	77.0	226	100.0
Ovary	0	0.0	13	3.0	113	26.0	309	71.0	435	100.0
Prostate	0	0.0	0	0.0	46	4.7	928	95.3	974	100.0
Urinary Bladder	0	0.0	6	1.7	51	14.4	298	83.9	355	100.0
Brain & Other CNS	18	3.9	43	9.4	141	30.9	254	55.7	456	100.0
Kidney & Renal Pelvis	3	0.7	11	2.6	101	24.2	303	72.5	418	100.0
Non-Hodgkin Lymphoma	2	0.3	23	3.0	138	17.9	606	78.8	769	100.0
Multiple Myeloma	0	0.0	4	1.2	61	17.7	280	81.2	345	100.0
Leukemia	10	1.3	40	5.4	108	14.6	583	78.7	741	100.0

NOTE: Due to rounding, percentages may not sum to 100.0

This page intentionally left blank.

INCIDENCE AND MORTALITY FOR SELECTED SITES

Lung and Bronchus

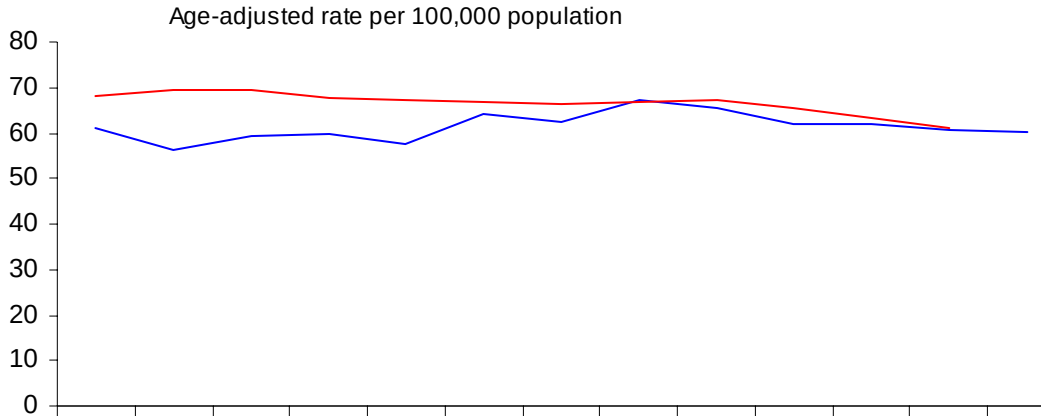
Although lung cancer was only the third most frequently diagnosed cancer among Nebraska residents in 2002, it was the year's leading cause of cancer mortality, accounting for more than 25% of the state's cancer deaths. Men are far more likely than women to get lung cancer and to die from it, both in Nebraska and throughout the United States, although trends since 1990 show that lung cancer incidence and mortality is declining for men but increasing for women. In recent years, lung cancer has averaged around 1,100 diagnoses and almost 900 deaths in Nebraska per year.

Cigarette smoking is the major cause of lung cancer and is estimated to cause 85% of lung cancer deaths. People who smoke two or more packs of cigarettes per day are 15 to 25 times more likely to die from lung cancer than non-smokers. Quitting smoking reduces the risk of dying from lung cancer, although it takes 10-15 years for an ex-smoker's risk to drop to the level of a lifelong non-smoker.

Despite its heavy toll in human lives, both lung cancer incidence and mortality remain lower in Nebraska than in the United States as a whole. In fact, Nebraska's lung cancer mortality rate has been consistently lower than the U.S. rate for several decades. This is undoubtedly attributable to Nebraska's traditionally low smoking prevalence rate. Data gathered in 2002 as part of Nebraska's Behavioral Risk Factor Surveillance System indicate that approximately one in five (20.3%) people 18 years of age and older currently smoke cigarettes.

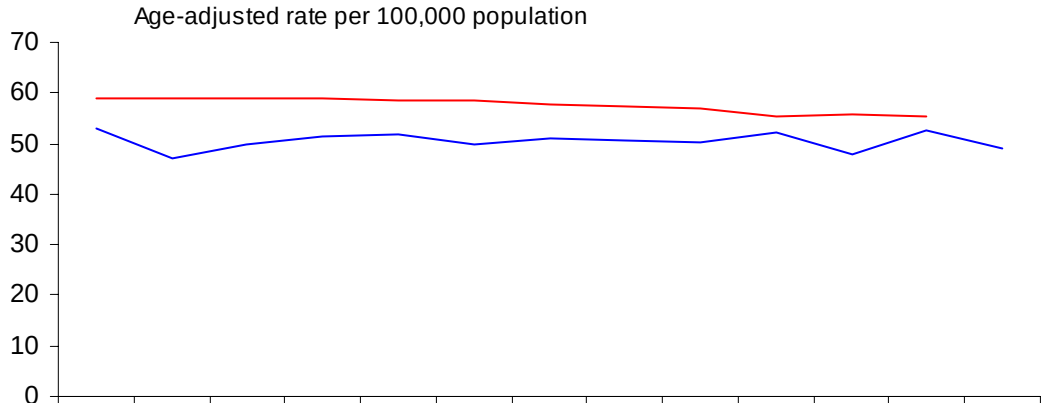
Lung and bronchus cancer incidence and mortality statistics by county of residence are presented in Appendix I (Table 9).

Lung and Bronchus Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



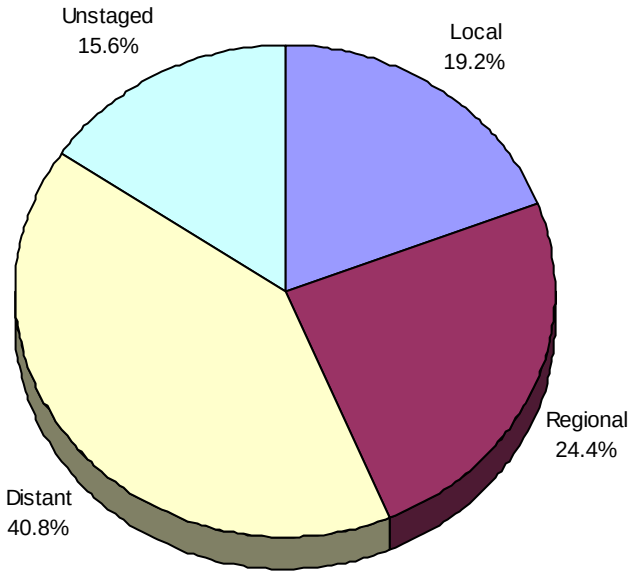
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	61.2	56.4	59.4	59.6	57.6	64.0	62.3	67.4	65.7	62.0	61.8	60.8	60.1
United States	68.2	69.4	69.6	67.9	67.3	66.9	66.4	66.6	67.4	65.5	63.4	61.2	

Lung and Bronchus Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	52.9	47.2	49.9	51.4	52.0	50.0	51.0	50.6	50.1	52.1	47.9	52.7	49.1
United States	58.9	59.0	58.9	59.1	58.5	58.4	57.9	57.5	57.1	55.4	55.8	55.2	

Lung and Bronchus Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



Breast (Female only)

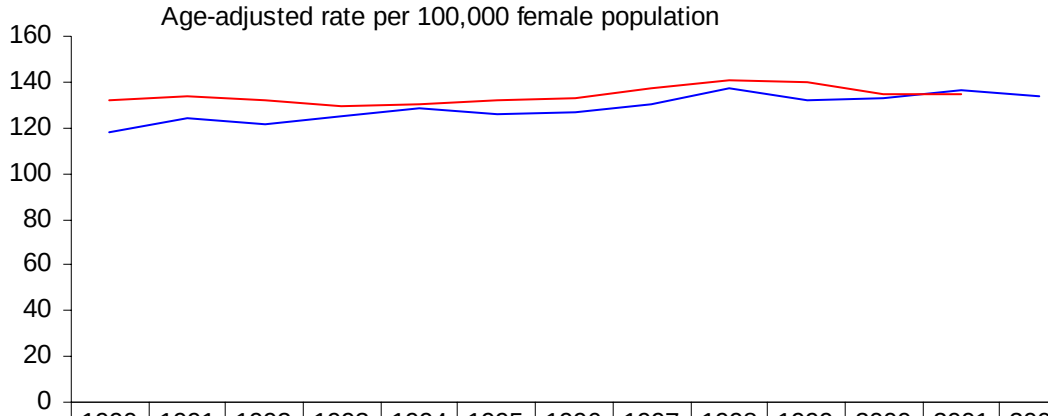
Breast cancer is the most common malignancy diagnosed among women and the second most frequent cause of female cancer deaths. In Nebraska, more than 6,400 women were diagnosed with invasive breast cancer and over 1,200 women died from it between 1998 and 2002. Since 1990, the rate of breast cancer deaths has declined, both in Nebraska and nationally, while the rate of breast cancer diagnoses has increased. This trend is probably due to increased use of mammography and clinical breast examination (CBE) for breast cancer screening. As more women are screened, more tumors are found, but because they are more likely to be early-stage tumors, they are more treatable and less likely to be fatal.

Age is one of the strongest risk factors for breast cancer. Less than 20% of the cases diagnosed in Nebraska during 1998-2002 involved a woman under 50, while more than half occurred among women 65 and older. Other risk factors include genetic mutations, a personal or family history of breast cancer, some forms of benign breast disease, early menstruation, late menopause, never having children or having a first child after age 30, and for post-menopausal women, obesity.

To date, knowledge about the risk factors for breast cancer has not translated into practical ways to prevent it from occurring. Screening is the only proven method for saving lives that the disease might otherwise claim. The ACS recommends an annual mammogram beginning at age 40 and continuing as long as a woman is in good health. The ACS also recommends that CBE be part of a regular health exam, about every three years for women 20-39, and annually for women 40 and older. Women who have an increased risk of breast cancer should talk with their doctors about starting mammography screening earlier, having additional tests (e.g., breast ultrasound or magnetic resonance imaging [MRI]), or having more frequent exams.

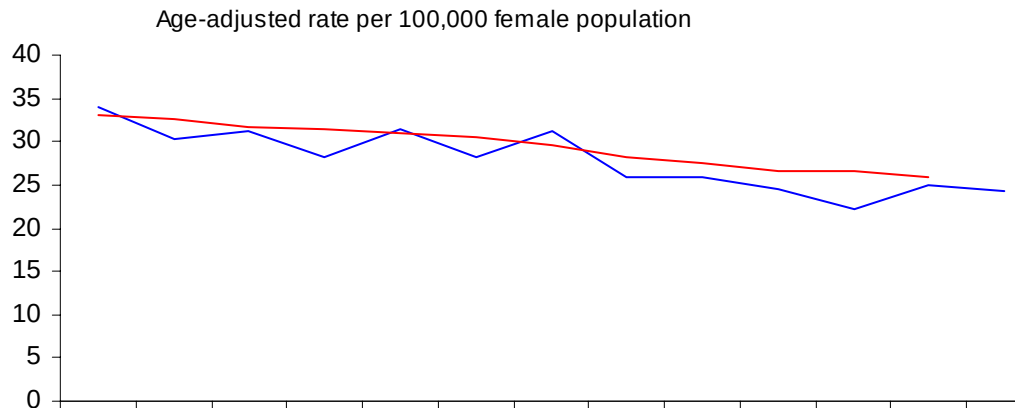
Female breast cancer incidence and mortality statistics by county of residence are presented in Appendix II (Table 10).

Female Breast Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



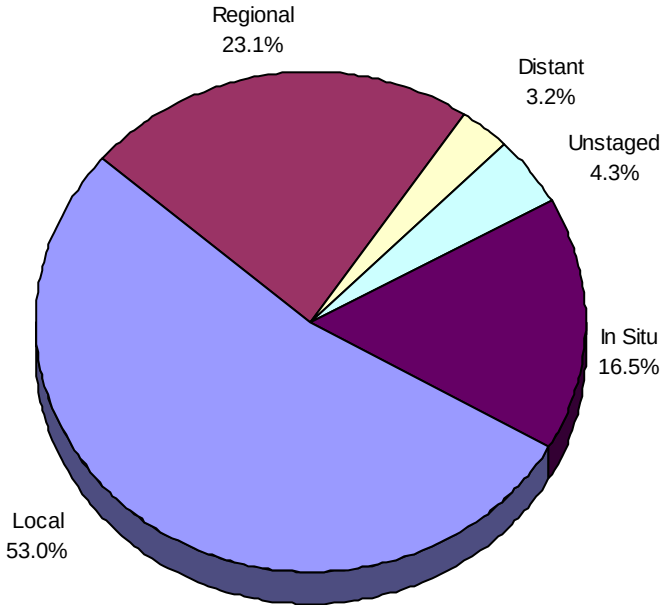
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	118.0	124.4	121.8	124.8	128.7	126.1	126.5	130.1	137.3	131.7	133.3	136.1	134.2
United States	131.6	133.5	131.8	129.1	130.6	132.2	133.3	137.3	140.6	140.1	135.0	134.8	

Female Breast Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	34.1	30.3	31.1	28.2	31.5	28.3	31.1	26.0	25.9	24.5	22.2	25.0	24.2
United States	33.1	32.7	31.6	31.4	30.9	30.6	29.5	28.2	27.5	26.6	26.6	25.9	

Female Breast Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



Colon and Rectum (Colorectal)

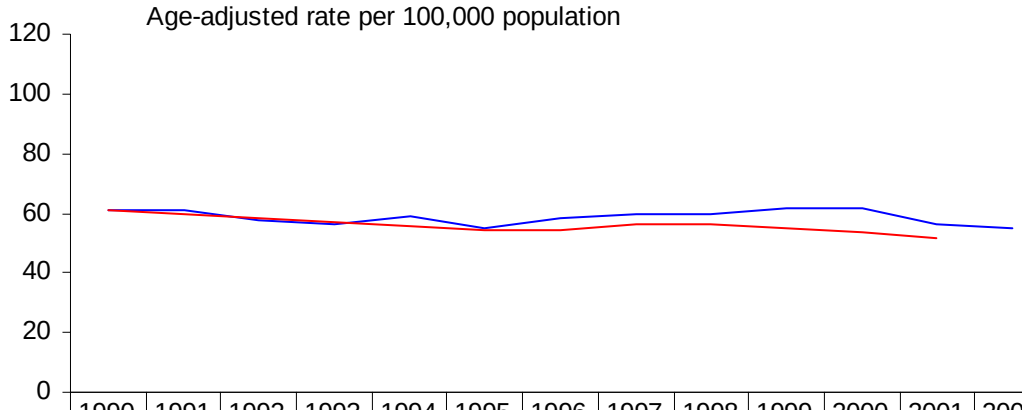
In 2002, colorectal cancer was the fourth most frequently diagnosed cancer among Nebraska residents, accounting for over 1,000 new cases. It was also the second leading cause of cancer mortality in the state, accounting for over 400 deaths.

The risk of developing colorectal cancer increases with age. In Nebraska, over 70% of the colorectal cancer cases that occurred during 1998-2002 were 65 years of age or older at the time of diagnosis. Other risk factors include a personal or family history of colorectal cancer or polyps, a personal history of chronic inflammatory bowel disease, and certain hereditary colorectal cancer syndromes. Modifiable risk factors include physical inactivity, obesity, smoking, red meat consumption, and having more than one alcoholic drink per day.

At present, screening for asymptomatic polyps and tumors remains the best method for preventing colorectal cancer cases and deaths. The ACS recommends that, for people of average risk, screening begin at age 50 and follow one of these schedules: 1) a fecal occult blood test (FOBT) or fecal immunochemical test (FIT) every year, 2) flexible sigmoidoscopy every five years, 3) an FOBT or FIT every year and flexible sigmoidoscopy every five years (both FOBT/FIT and sigmoidoscopy together are preferable to either option alone), 4) double-contrast barium enema every five years, or 5) colonoscopy every ten years. People at high risk (i.e., a personal or family history of colorectal cancer or polyps, a personal history of chronic inflammatory bowel disease, or a family history of hereditary colorectal cancer syndromes) should begin screening before age 50 and/or be screened more often.

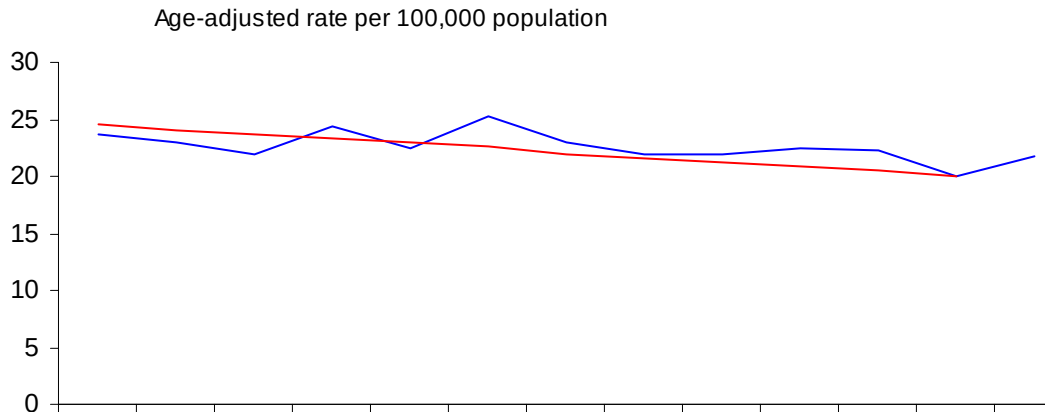
Colorectal cancer incidence and mortality statistics by county of residence are presented in Appendix III (Table 11).

Colorectal Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



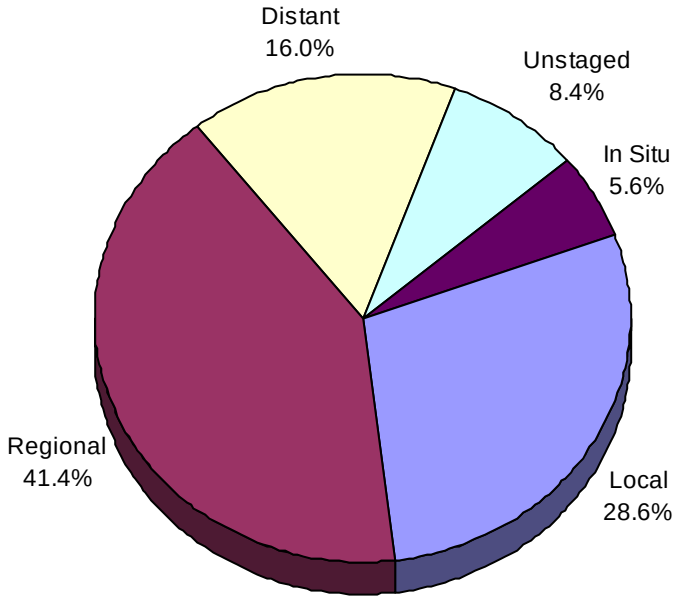
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	61.0	61.2	57.6	56.2	58.7	54.8	58.5	59.7	59.8	61.7	61.4	56.6	55.1
United States	60.7	59.5	58.0	56.8	55.7	54.0	54.6	56.3	56.6	55.2	53.5	51.8	

Colorectal Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	23.6	23.0	21.9	24.4	22.4	25.3	23.0	21.9	22.0	22.4	22.3	20.0	21.7
United States	24.6	24.0	23.6	23.3	22.9	22.6	21.9	21.5	21.2	20.9	20.6	20.0	

Colorectal Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



Prostate

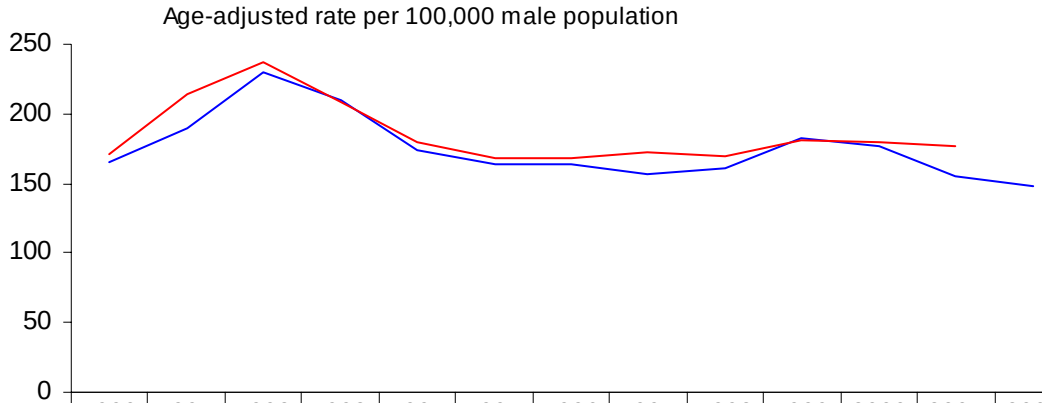
With over 1,100 diagnoses in 2002, prostate cancer was the most common cancer among Nebraska men, accounting for more than one of every four new cancer cases. Although survival rates are quite high (99% of all prostate cancer patients now live at least five years after diagnosis), it is also the third leading cause of male cancer deaths, and was responsible for almost 1,000 deaths in Nebraska between 1998 and 2002. Since the mid-1990s, prostate cancer death rates have declined, both in Nebraska and throughout the United States.

Little is known about the risk factors for prostate cancer. However, there are two well-known high-risk groups: the elderly (men 65 and older accounted for over 70% of Nebraska diagnoses during 1998-2002) and African-Americans. There also is some evidence that family history of the disease, dietary fat consumption, and occupational exposure to cadmium may each increase the risk of prostate cancer.

Although screening can reduce mortality for some types of cancer (e.g., breast, cervical, colorectal), screening for prostate cancer remains controversial, with many scientists maintaining that its effectiveness is still unproven. The ACS recommends that health care providers offer the prostate-specific antigen test and a digital rectal exam annually to men age 50 and older who have at least a 10-year life expectancy. Men at higher risk (African-Americans and those who have a first-degree relative diagnosed with prostate cancer at a young age) should begin testing at age 45. Men at even higher risk, due to multiple first-degree relatives affected at an early age, could begin testing at age 40. Men should be given information about the benefits and limitations of testing so that they can make the most informed decision possible.

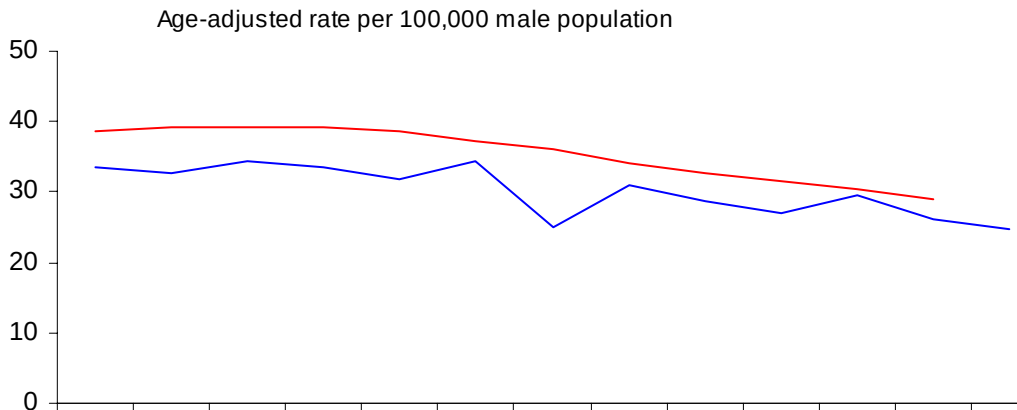
Prostate cancer incidence and mortality statistics by county of residence are presented in Appendix IV (Table 12).

Prostate Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



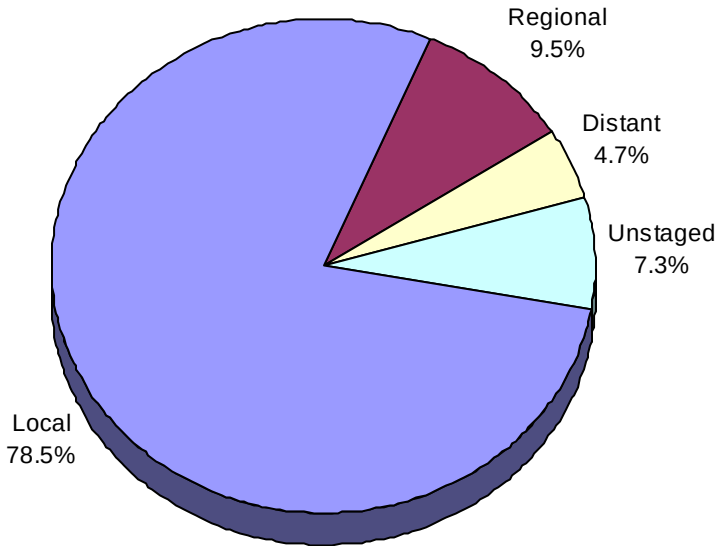
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	165.4	189.9	229.3	209.7	173.8	164.3	163.5	157.1	160.3	181.9	176.2	154.5	148.3
United States	170.4	214.4	236.8	208.9	179.8	168.3	168.0	172.1	169.1	180.5	178.9	176.8	

Prostate Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	33.5	32.8	34.5	33.5	31.9	34.4	25.1	31.0	28.8	26.9	29.5	26.2	24.8
United States	38.6	39.3	39.2	39.3	38.5	37.3	36.0	34.1	32.6	31.6	30.3	29.1	

Prostate Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



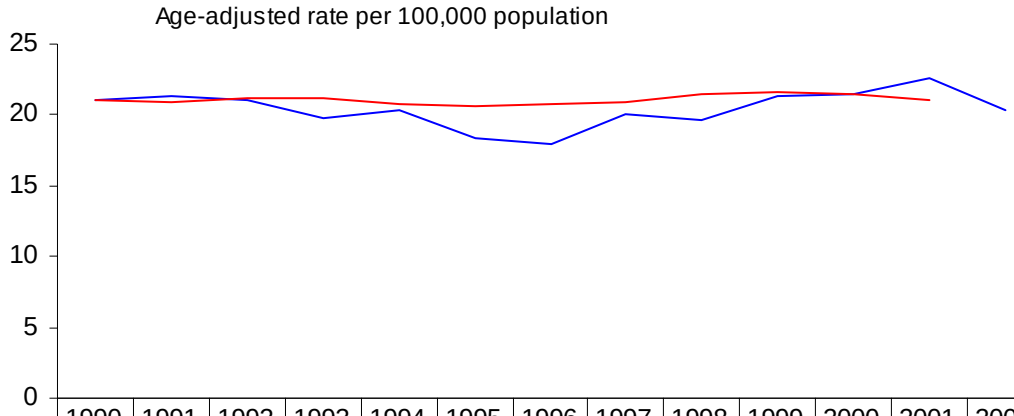
Urinary Bladder

Between 1998 and 2002, almost 1,900 Nebraska residents were diagnosed with bladder cancer. Bladder cancer occurs far more frequently among men than women (by about a 3-to-1 ratio), and now ranks fourth as the most common site of cancer diagnoses among Nebraska men. However, deaths from the disease are much less frequent (355 Nebraska residents died from it during 1998-2002), which is the result of a high percentage of early-stage diagnoses and the existence of effective treatments. Survival prospects have improved considerably in recent decades, to the point where the most current national data show that over 80% of all bladder cancer patients are still alive five years after diagnosis.

Cigarette smoking is the most important known risk factor for bladder cancer. Smokers develop bladder cancer two to three times more often than non-smokers, and estimates suggest that about one-third of all cases are attributable to smoking. Occupational exposures to certain substances used in the manufacture of dyes (benzidine and 2-naphthylamine) also increase the risk of bladder cancer, as does employment in the rubber and leather industries.

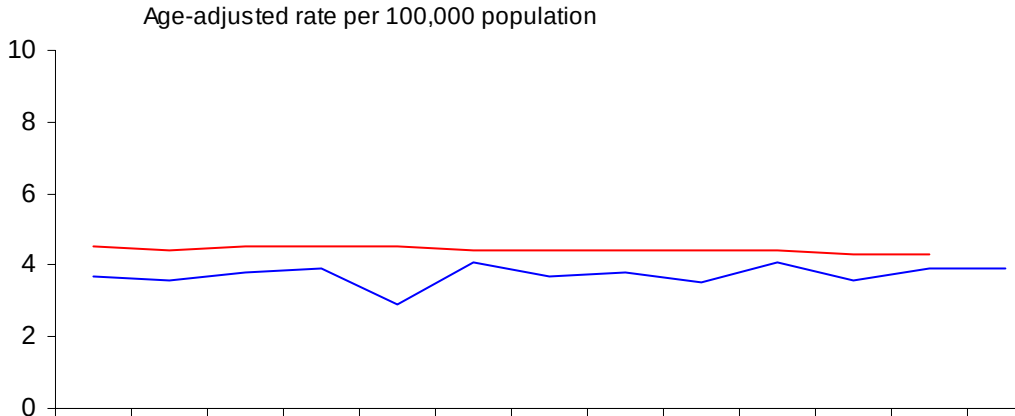
Urinary bladder cancer incidence and mortality statistics by county of residence are presented in Appendix V (Table 13).

Urinary Bladder Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



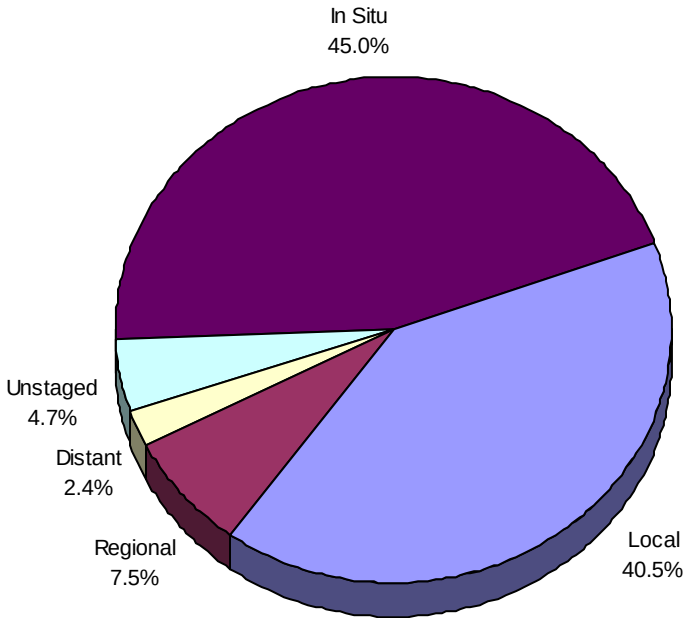
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	21.0	21.3	21.0	19.8	20.4	18.4	18.0	20.0	19.6	21.3	21.4	22.6	20.3
United States	21.1	20.9	21.2	21.2	20.8	20.6	20.7	20.9	21.5	21.6	21.5	21.0	

Urinary Bladder Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	3.7	3.6	3.8	3.9	2.9	4.1	3.7	3.8	3.5	4.1	3.6	3.9	3.9
United States	4.5	4.4	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.3	4.3	

Urinary Bladder Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



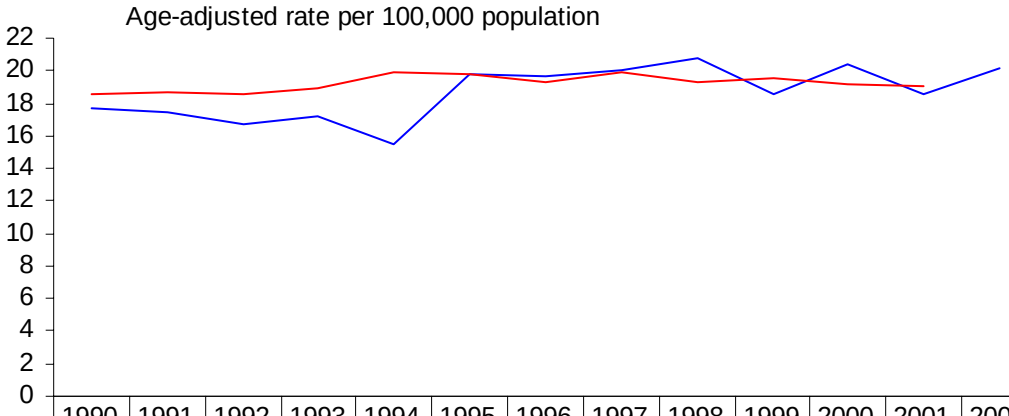
Non-Hodgkin Lymphoma

Lymphomas are cancers that affect the white blood cells of the immune system, and are usually classified as either Hodgkin Disease or Non-Hodgkin lymphoma. Non-Hodgkin lymphoma is by far the more common disorder of the two, accounting for over 1,700 diagnoses and 700 deaths among Nebraska residents between 1998 and 2002 (for Hodgkin Disease, the comparable figures are 255 diagnoses and 52 deaths). National statistics indicate that the incidence rate for Non-Hodgkin lymphoma has increased by about 80% since the mid-1970s, and some of this increase is related to the appearance of AIDS. However, both state and national data show that Non-Hodgkin lymphoma deaths have been increasing since at least 1950, which indicates that factors other than AIDS are also responsible.

The causes of Non-Hodgkin lymphoma are unknown, although there is evidence that viral exposures and reduced immune function are associated with the disease. People whose immune systems have been suppressed by drugs, particularly those who have received an organ transplant, have an extremely high risk of Non-Hodgkin lymphoma, and it also occurs more frequently among people with congenital and acquired immunologic disorders, including AIDS. The increased incidence of the disease among people with congenital disorders of the immune system suggests that hereditary influences may also be a risk factor. Some studies have found that occupational exposure to certain herbicides is a risk factor as well.

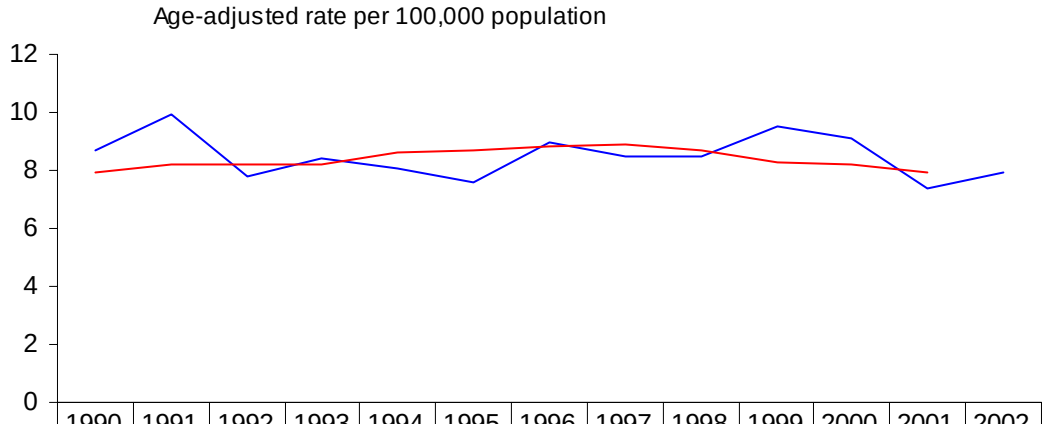
Non-Hodgkin lymphoma incidence and mortality statistics are presented in Appendix VI (Table 14).

Non-Hodgkin Lymphoma
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



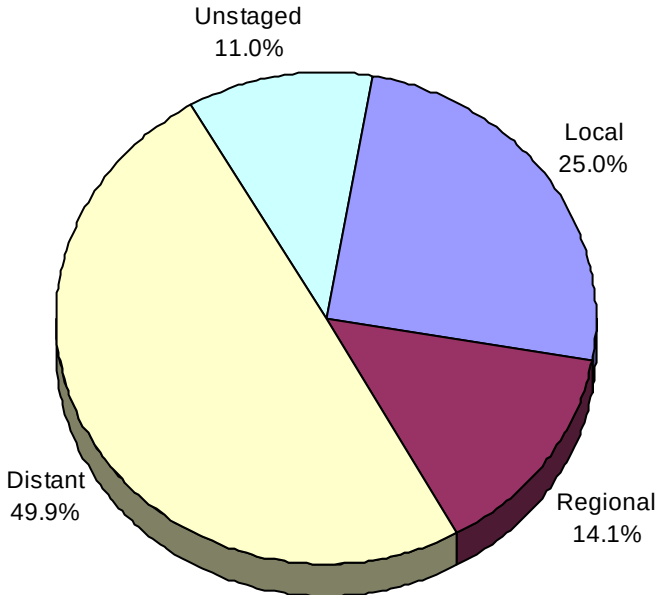
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	17.7	17.5	16.7	17.2	15.5	19.8	19.7	20.0	20.8	18.5	20.4	18.6	20.1
United States	18.5	18.7	18.6	18.9	19.9	19.8	19.3	19.9	19.3	19.5	19.2	19.0	

Non-Hodgkin Lymphoma
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	8.7	9.9	7.8	8.4	8.1	7.6	9.0	8.5	8.5	9.5	9.1	7.4	7.9
United States	7.9	8.2	8.2	8.2	8.6	8.7	8.8	8.9	8.7	8.3	8.2	7.9	

Non-Hodgkin Lymphoma
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



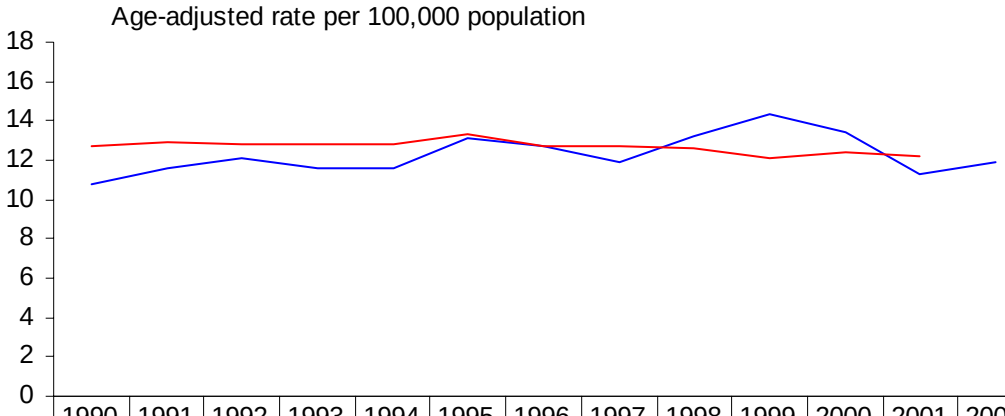
Leukemia

Between 1998 and 2002, leukemia accounted for more than 1,100 diagnoses and over 700 deaths among Nebraska residents. Although it is sometimes thought of as a children's disease, statistics show that this is not strictly true. In fact, more than six of every ten leukemia cases that occurred in Nebraska between 1998 and 2002 were 65 or older at diagnosis. At the same time, however, leukemia was also the state's most common type of childhood cancer, accounting for about one-quarter of all cancers diagnosed among Nebraska residents under the age of 18. By type, acute lymphocytic leukemia was the most frequently diagnosed among children, while acute myeloid and chronic lymphocytic were the most common types among adults.

The major causes of most types of leukemia are unknown. Nevertheless, several risk factors have been identified, and include genetic abnormalities (such as Down's syndrome), exposure to ionizing radiation, and workplace exposure to benzene and other related solvents. Adult T-cell leukemia is strongly associated with infection by a retrovirus, HTLV-I (human T-lymphotropic virus, type I). Some evidence also suggests that cigarette smoking is a risk factor for certain types of leukemia.

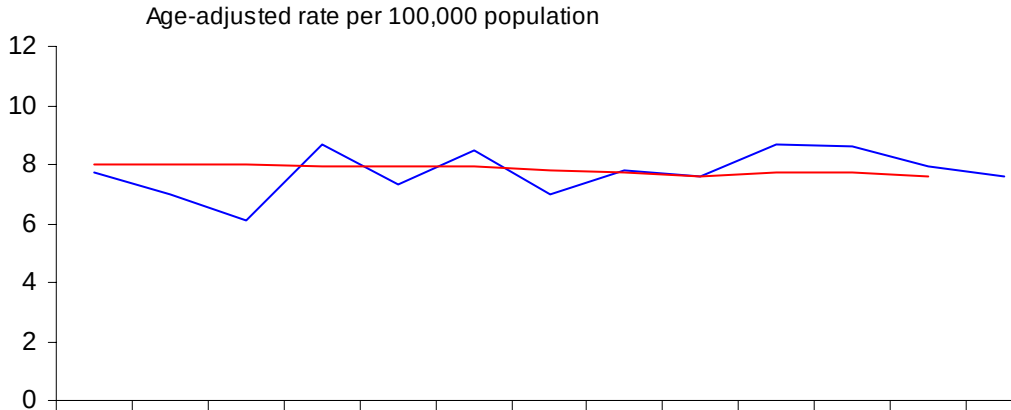
Leukemia incidence and mortality statistics by county of residence are presented in Appendix VII (Table 15).

Leukemia
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



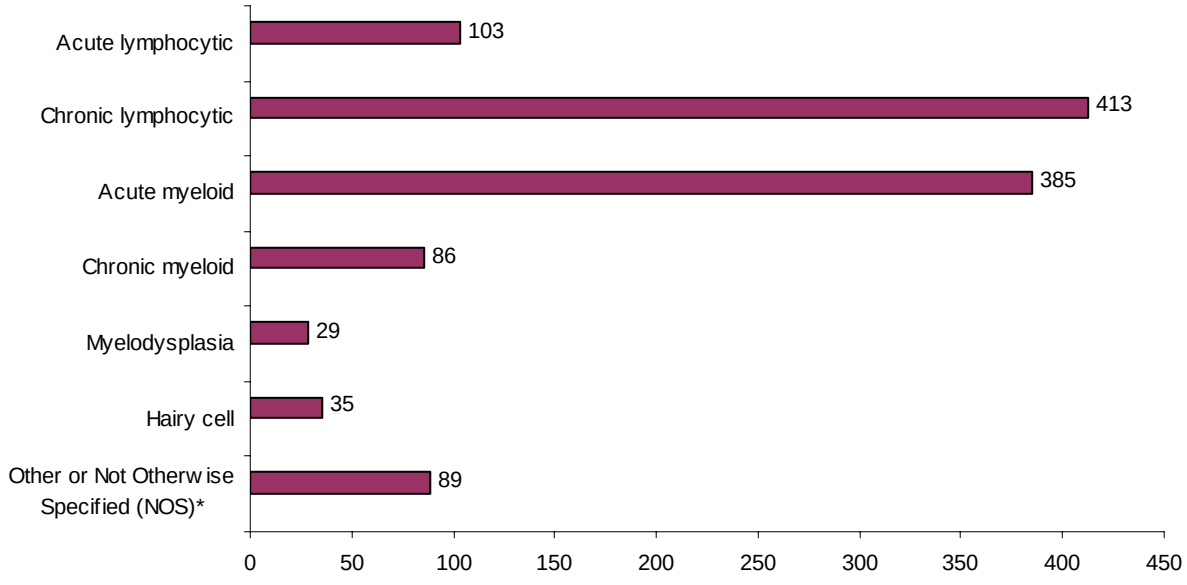
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	10.8	11.6	12.1	11.6	11.6	13.1	12.7	11.9	13.2	14.3	13.4	11.3	11.9
United States	12.7	12.9	12.8	12.8	12.8	13.3	12.7	12.7	12.6	12.1	12.4	12.2	

Leukemia
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	7.7	7.0	6.1	8.7	7.3	8.5	7.0	7.8	7.6	8.7	8.6	7.9	7.6
United States	8.0	8.0	8.0	7.9	7.9	7.9	7.8	7.7	7.6	7.7	7.7	7.6	

Number of Leukemia Diagnoses, By Histologic Type
Nebraska, 1998 – 2002



*includes plasma cell leukemia (1 case); acute biphenotypic leukemia (1 case); acute leukemia, NOS (37 cases); chronic leukemia, NOS (3 cases); lymphoid leukemia, NOS (12 cases); myeloid leukemia, NOS (10 cases); leukemia, NOS (25 cases)
Abbreviation: NOS, not otherwise specified

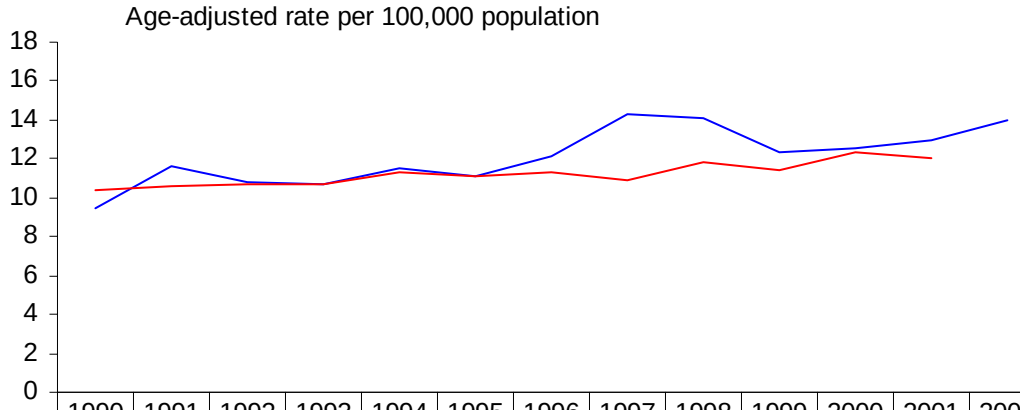
Kidney and Renal Pelvis

Cancers of the kidney and renal pelvis accounted for more than 1,100 diagnoses in Nebraska between 1998 and 2002, making it the state's ninth leading cause of new cancer cases. It also accounted for more than 400 deaths in Nebraska during the same period. Trends since 1990 show little change in the rate of diagnosis or death from cancer of the kidney, either at the state or national level. The chances of survival for people with kidney cancer are relatively high, with the most current national statistics showing that more than 60% of cases remain alive at least five years after diagnosis.

Preventable risk factors for cancer of the kidney include cigarette smoking and obesity. Current estimates indicate that smoking is responsible for about one-third of all kidney cancer deaths. Non-preventable risk factors for cancer of the kidney include age, certain hereditary conditions, family history of kidney cancer, coexisting kidney disease, and high blood pressure. However, since people with high blood pressure are often treated with drugs, it is unclear whether their increased risk is related to their high blood pressure or the drugs. Nevertheless, people who need drugs to lower their blood pressure should take them.

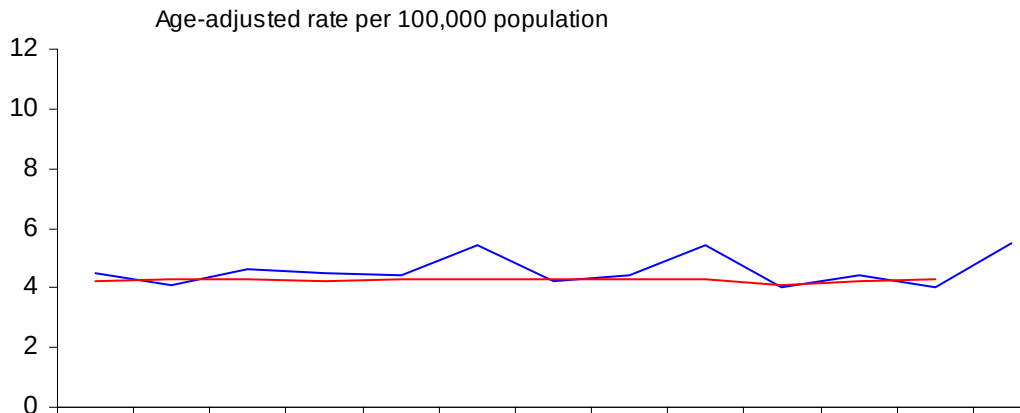
Kidney and renal pelvis cancer incidence and mortality statistics by county of residence are presented in Appendix VIII (Table 16).

Kidney and Renal Pelvis Cancer
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



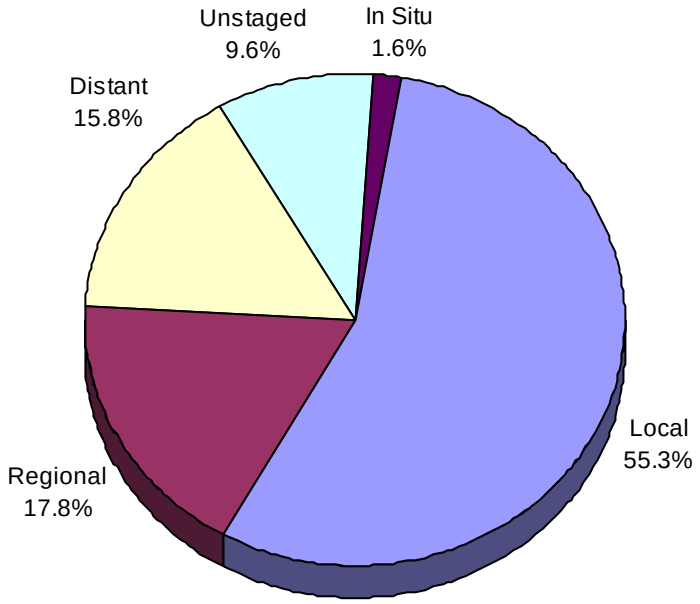
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	9.5	11.6	10.8	10.7	11.5	11.1	12.1	14.3	14.1	12.3	12.5	13.0	14.0
United States	10.4	10.6	10.7	10.7	11.3	11.1	11.3	10.9	11.8	11.4	12.3	12.0	

Kidney and Renal Pelvis Cancer
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	4.5	4.1	4.6	4.5	4.4	5.4	4.2	4.4	5.4	4.0	4.4	4.0	5.5
United States	4.2	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3	4.1	4.2	4.3	

Kidney and Renal Pelvis Cancer
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



Melanoma of the Skin

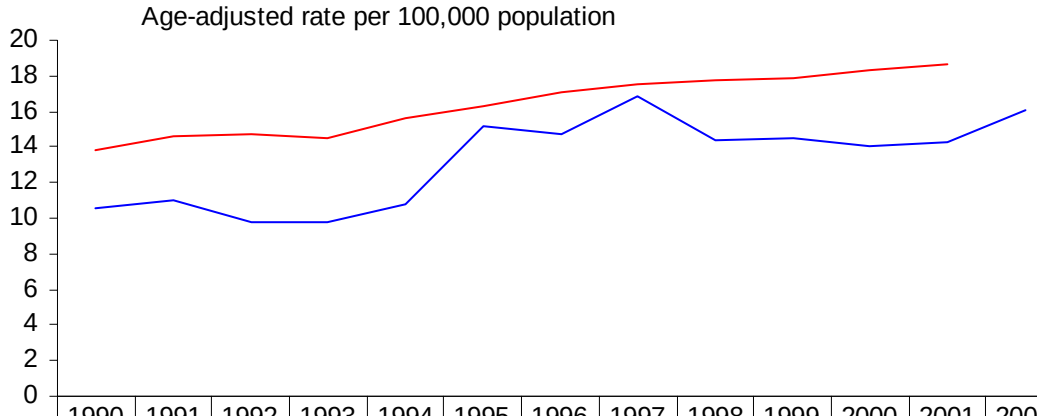
There are several different types of skin cancer, but melanomas are the most serious. Nationally, melanomas comprise only about 5% of all skin cancer diagnoses but about 75% of all skin cancer deaths. In Nebraska, melanomas of the skin accounted for more than 1,200 diagnoses and 200 deaths between 1998 and 2002. The incidence of melanoma has risen dramatically in recent years: in Nebraska, the rate has increased by more than 50% since 1990 (some of this may be due to improved case reporting, however), while the national rate has doubled in the span of just 20 years.

Melanoma is related to exposure to ultraviolet radiation (most of which comes from the sun), particularly exposures during childhood that resulted in severe sunburns. The risk of developing melanoma is particularly high among people with light skin. Sun exposure is not the only risk factor, however: family history of melanoma and the presence of dysplastic nevi (large moles with irregular coloration and shape) also carry some increased risk.

Skin melanomas are among the most preventable and treatable of all cancers. Wearing protective clothing and using sunscreen are the best methods for preventing the disease, and children in particular should have such protection. In addition, early detection can greatly reduce the risk of melanoma mortality. Recognition of changes in skin growths or the appearance of new growths is the best way to find melanomas early in their development. The ACS suggests that adults practice skin self-examination regularly, and that suspicious lesions be evaluated promptly by a physician.

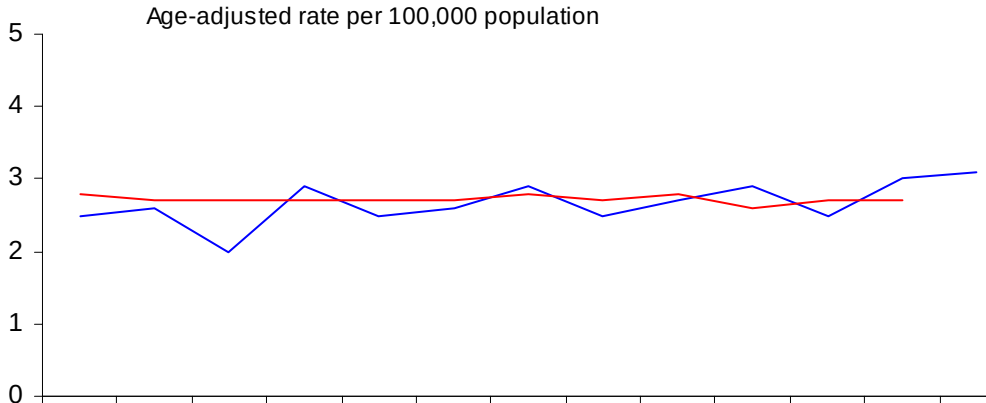
Melanoma of the skin incidence and mortality statistics by county of residence are presented in Appendix IX (Table 17).

Melanoma of the Skin
Incidence Rates, By Year
Nebraska and the United States (1990-2002)



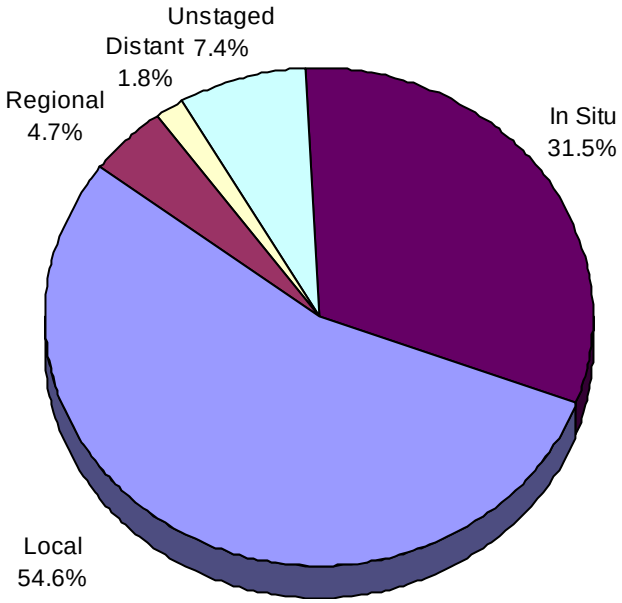
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	10.6	11.0	9.8	9.8	10.8	15.2	14.7	16.9	14.4	14.5	14.1	14.3	16.1
United States	13.8	14.6	14.7	14.5	15.6	16.3	17.1	17.5	17.7	17.9	18.3	18.7	

Melanoma of the Skin
Mortality Rates, By Year
Nebraska and the United States (1990-2002)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nebraska	2.5	2.6	2.0	2.9	2.5	2.6	2.9	2.5	2.7	2.9	2.5	3.0	3.1
United States	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.7	2.8	2.6	2.7	2.7	

Melanoma of the Skin
% of Cases, By Stage of Disease at Diagnosis
Nebraska (1998-2002)



This page intentionally left blank.

APPENDICES

TABLE 9: Lung and Bronchus Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	64.8	NA	56.2
NEBRASKA	5,459	61.8	4,472	50.2
COUNTY				
ADAMS	123	69.5	93	50.9
ANTELOPE	30	56.5	31	56.7
ARTHUR	--	--	1	**
BANNER	--	--	--	--
BLAINE	--	--	--	--
BOONE	17	38.6	17	35.5
BOX BUTTE	43	65.4	33	49.9
BOYD	8	39.8	8	35.9
BROWN	11	39.5	9	30.5
BUFFALO	97	53.0	90	48.5
BURT	50	87.2	45	73.2
BUTLER	28	46.7	27	46.2
CASS	70	56.8	64	52.0
CEDAR	33	51.5	20	31.1
CHASE	14	46.1	14	47.1
CHERRY	15	37.2	12	29.4
CHEYENNE	27	43.0	29	44.8
CLAY	25	55.4	22	49.0
COLFAX	29	48.7	22	36.6
CUMING	25	▼34.0	22	30.3
CUSTER	46	52.7	37	41.7
DAKOTA	72	86.1	59	71.7
DAWES	25	49.5	27	50.8
DAWSON	79	62.1	63	48.3
DEUEL	11	66.9	13	81.0
DIXON	19	48.0	18	42.9
DODGE	140	62.6	112	48.6
DOUGLAS	1,582	▲77.1	1,249	▲61.0
DUNDY	6	31.0	6	31.0
FILLMORE	36	72.3	31	61.2
FRANKLIN	22	79.7	25	84.4
FRONTIER	7	36.7	3	**
FURNAS	21	48.3	17	38.9
GAGE	75	48.2	72	45.4
GARDEN	12	60.0	9	44.9
GARFIELD	9	55.0	5	**
GOSPER	8	49.2	6	37.5
GRANT	--	--	--	--
GREELEY	10	52.8	6	28.5
HALL	190	66.8	143	49.8
HAMILTON	28	52.1	24	44.2
HARLAN	14	48.1	11	37.5
HAYES	4	**	4	**
HITCHCOCK	9	39.1	12	49.4
HOLT	37	42.6	36	41.3
HOOKER	3	**	1	**
HOWARD	20	48.3	20	47.2

TABLE 9: Lung and Bronchus Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	15	▼21.0	17	▼25.3
JOHNSON	16	44.2	11	28.7
KEARNEY	23	56.5	23	57.9
KEITH	35	56.5	27	43.0
KEYA PAHA	1	**	2	**
KIMBALL	21	65.3	16	49.6
KNOX	36	44.5	26	31.4
LANCASTER	648	61.6	545	51.8
LINCOLN	138	69.2	116	57.9
LOGAN	2	**	--	--
LOUP	--	--	2	**
McPHERSON	2	**	2	**
MADISON	118	64.1	93	50.6
MERRICK	27	53.4	26	51.9
MORRILL	14	41.5	13	39.7
NANCE	15	54.8	11	43.6
NEMAHA	25	51.5	28	56.4
NUCKOLLS	25	52.2	27	56.4
OTOE	56	56.3	44	43.2
PAWNEE	15	50.0	11	34.8
PERKINS	5	**	4	**
PHELPS	30	47.6	26	40.9
PIERCE	23	51.0	13	27.1
PLATTE	100	60.6	75	45.3
POLK	18	44.0	14	30.8
RED WILLOW	51	65.1	40	50.0
RICHARDSON	47	67.9	42	61.0
ROCK	7	55.5	5	**
SALINE	43	52.2	38	45.5
SARPY	284	71.2	209	53.6
SAUNDERS	66	56.5	53	45.9
SCOTTS BLUFF	132	57.7	110	46.7
SEWARD	47	50.5	42	44.0
SHERIDAN	26	55.4	19	37.6
SHERMAN	12	44.9	7	23.2
SIOUX	4	**	6	62.5
STANTON	15	46.1	19	58.4
THAYER	13	▼24.0	14	▼24.1
THOMAS	1	**	--	--
THURSTON	16	45.2	16	45.3
VALLEY	17	43.7	12	29.4
WASHINGTON	52	53.7	44	45.8
WAYNE	23	47.5	14	27.9
WEBSTER	20	56.9	11	30.8
WHEELER	4	**	2	**
YORK	41	44.8	29	29.8

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate
▲ county rate significantly higher than the state rate

TABLE 10: Female Breast Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	137.5	NA	27.0
NEBRASKA	6,354	133.9	1,236	24.2
COUNTY				
ADAMS	107	109.8	17	18.0
ANTELOPE	36	127.7	11	38.2
ARTHUR	2	**	1	**
BANNER	3	**	--	--
BLAINE	2	**	--	--
BOONE	37	170.5	4	**
BOX BUTTE	37	112.1	7	18.5
BOYD	16	141.0	3	**
BROWN	18	125.2	3	**
BUFFALO	121	114.2	25	22.1
BURT	39	135.5	6	22.4
BUTLER	38	133.3	10	28.7
CASS	75	110.2	13	18.2
CEDAR	34	96.6	5	**
CHASE	21	137.0	4	**
CHERRY	25	126.7	4	**
CHEYENNE	43	136.2	9	27.3
CLAY	28	114.7	5	**
COLFAX	45	141.0	7	14.2
CUMING	40	100.6	11	23.5
CUSTER	45	101.0	11	22.5
DAKOTA	61	133.8	13	27.3
DAWES	35	141.3	7	22.3
DAWSON	94	141.3	23	33.2
DEUEL	11	150.3	--	--
DIXON	22	110.0	3	**
DODGE	162	142.8	39	32.0
DOUGLAS	1,639	▲ 141.1	339	28.3
DUNDY	9	92.3	2	**
FILLMORE	29	115.2	8	30.6
FRANKLIN	23	167.2	5	**
FRONTIER	9	79.4	2	**
FURNAS	21	102.6	4	**
GAGE	124	152.1	19	20.5
GARDEN	17	202.5	5	**
GARFIELD	10	105.5	3	**
GOSPER	7	87.6	--	--
GRANT	1	**	--	--
GREELEY	15	148.0	6	53.1
HALL	194	131.2	27	16.1
HAMILTON	32	112.5	8	27.5
HARLAN	19	113.7	4	**
HAYES	3	**	2	**
HITCHCOCK	13	117.4	4	**
HOLT	55	132.4	11	28.9
HOOKER	6	152.0	1	**
HOWARD	23	120.5	8	34.5

TABLE 10: Female Breast Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	33	101.1	9	26.5
JOHNSON	26	138.4	8	33.5
KEARNEY	21	97.4	6	24.4
KEITH	31	100.3	12	36.7
KEYA PAHA	4	**	--	--
KIMBALL	20	125.2	3	**
KNOX	25	▼64.8	4	**
LANCASTER	857	144.3	160	25.8
LINCOLN	144	136.9	33	30.3
LOGAN	5	**	2	**
LOUP	2	**	--	--
McPHERSON	3	**	1	**
MADISON	144	147.3	22	20.2
MERRICK	36	128.3	2	**
MORRILL	15	90.0	3	**
NANCE	28	172.0	6	37.7
NEMAHA	37	146.0	4	**
NUCKOLLS	29	129.8	11	41.5
OTOE	78	139.8	9	18.0
PAWNEE	22	132.8	4	**
PERKINS	13	144.6	5	**
PHELPS	51	158.4	7	22.8
PIERCE	34	133.4	5	**
PLATTE	133	151.9	21	22.8
POLK	13	▼65.0	2	**
RED WILLOW	44	121.1	13	33.9
RICHARDSON	45	133.2	13	28.4
ROCK	6	110.3	--	--
SALINE	57	139.7	11	21.5
SARPY	351	146.0	54	24.2
SAUNDERS	79	134.6	19	26.6
SCOTTS BLUFF	138	111.7	26	20.3
SEWARD	74	148.4	8	12.5
SHERIDAN	23	98.0	7	28.5
SHERMAN	13	96.8	2	**
SIOUX	2	**	--	--
STANTON	19	106.6	4	**
THAYER	29	133.1	8	24.7
THOMAS	3	**	--	--
THURSTON	15	91.9	2	**
VALLEY	8	▼48.4	3	**
WASHINGTON	66	125.6	12	21.2
WAYNE	31	113.6	5	**
WEBSTER	23	140.8	1	**
WHEELER	6	188.3	1	**
YORK	72	142.5	9	17.7

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 female population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate
▲ county rate significantly higher than the state rate

TABLE 11: Colon and Rectum (Colorectal) Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	54.6	NA	20.8
NEBRASKA	5,295	58.6	1,998	21.6
COUNTY				
ADAMS	95	49.5	50	24.8
ANTELOPE	28	53.8	13	23.2
ARTHUR	--	--	--	--
BANNER	2	**	--	--
BLAINE	1	**	2	**
BOONE	38	89.1	9	17.1
BOX BUTTE	37	54.3	19	27.8
BOYD	11	53.8	6	32.5
BROWN	12	45.0	2	**
BUFFALO	114	59.2	37	18.6
BURT	33	59.2	12	17.3
BUTLER	33	53.6	15	27.6
CASS	66	53.6	24	19.5
CEDAR	49	70.3	18	25.4
CHASE	13	41.3	7	19.8
CHERRY	16	41.3	14	32.8
CHEYENNE	36	59.4	10	16.0
CLAY	25	59.4	18	37.6
COLFAX	35	57.3	14	21.2
CUMING	38	47.9	13	13.8
CUSTER	53	60.7	20	23.3
DAKOTA	59	70.2	24	29.0
DAWES	32	63.6	9	17.0
DAWSON	59	45.6	26	19.7
DEUEL	4	**	4	**
DIXON	22	50.0	6	15.3
DODGE	186	80.2	68	27.2
DOUGLAS	1,251	60.7	462	22.5
DUNDY	8	41.0	2	**
FILLMORE	20	36.1	12	20.2
FRANKLIN	17	57.8	13	40.6
FRONTIER	14	78.0	6	30.1
FURNAS	21	48.5	7	14.9
GAGE	84	50.6	36	19.4
GARDEN	18	94.0	4	**
GARFIELD	10	50.1	4	**
GOSPER	8	46.9	5	**
GRANT	1	**	--	--
GREELEY	14	64.9	3	**
HALL	164	56.8	65	21.8
HAMILTON	21	38.8	11	20.0
HARLAN	14	49.0	11	35.2
HAYES	1	**	1	**
HITCHCOCK	9	33.0	5	**
HOLT	54	71.3	21	23.4
HOOKER	7	79.0	--	--
HOWARD	20	44.8	7	15.4

TABLE 11: Colon and Rectum (Colorectal) Cancer Incidence and Mortality
(Continued)
Numbers of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	38	60.1	12	19.6
JOHNSON	29	74.7	10	24.4
KEARNEY	25	57.3	10	21.1
KEITH	36	60.0	12	19.7
KEYA PAHA	4	**	2	**
KIMBALL	13	39.4	4	**
KNOX	55	72.2	20	25.3
LANCASTER	634	59.3	227	21.3
LINCOLN	115	56.2	42	20.3
LOGAN	--	--	1	**
LOUP	3	**	3	**
McPHERSON	1	**	1	**
MADISON	127	66.8	37	20.1
MERRICK	33	60.0	15	24.7
MORRILL	19	53.2	5	**
NANCE	25	82.2	8	25.4
NEMAHA	32	57.3	18	30.8
NUCKOLLS	31	72.2	6	11.9
OTOE	75	70.3	21	18.4
PAWNEE	23	85.3	7	19.2
PERKINS	13	57.3	5	**
PHELPS	29	44.8	14	19.7
PIERCE	25	46.5	10	20.4
PLATTE	111	65.6	48	27.7
POLK	31	79.2	9	20.4
RED WILLOW	47	57.7	14	18.2
RICHARDSON	52	69.4	23	31.1
ROCK	10	76.0	5	**
SALINE	72	85.0	21	21.4
SARPY	214	58.6	75	22.6
SAUNDERS	63	53.4	17	14.5
SCOTTS BLUFF	111	46.3	50	20.2
SEWARD	61	62.8	24	23.5
SHERIDAN	28	60.7	9	18.8
SHERMAN	19	70.3	5	**
SIOUX	1	**	1	**
STANTON	10	28.4	4	**
THAYER	26	52.6	10	20.6
THOMAS	4	**	--	--
THURSTON	26	74.9	7	19.0
VALLEY	14	35.3	5	**
WASHINGTON	52	53.9	23	23.3
WAYNE	25	46.6	8	14.1
WEBSTER	20	62.7	6	14.9
WHEELER	1	**	1	**
YORK	59	60.0	28	26.1

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 12: Prostate Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	175.5	NA	31.5
NEBRASKA	6,328	163.8	974	27.3
COUNTY				
ADAMS	100	132.5	22	29.1
ANTELOPE	44	185.3	3	**
ARTHUR	3	**	--	--
BANNER	6	216.1	--	--
BLAINE	3	**	--	--
BOONE	37	179.0	6	28.0
BOX BUTTE	63	217.2	7	26.0
BOYD	21	216.4	2	**
BROWN	13	95.8	4	**
BUFFALO	160	201.8	20	26.1
BURT	47	168.4	8	29.1
BUTLER	46	173.5	8	29.1
CASS	79	137.1	9	21.9
CEDAR	62	206.1	8	26.1
CHASE	24	174.3	5	**
CHERRY	16	90.2	1	**
CHEYENNE	52	193.1	8	30.2
CLAY	43	203.4	6	28.9
COLFAX	51	201.8	7	29.1
CUMING	44	128.4	9	25.5
CUSTER	82	216.0	12	28.4
DAKOTA	34	▼91.0	9	31.3
DAWES	41	191.0	10	46.6
DAWSON	87	153.5	16	28.4
DEUEL	19	233.3	4	**
DIXON	18	105.1	7	38.4
DODGE	191	195.9	20	21.9
DOUGLAS	1,318	▼151.0	207	28.4
DUNDY	15	195.3	4	**
FILLMORE	40	189.1	6	27.1
FRANKLIN	21	154.9	5	**
FRONTIER	11	121.4	1	**
FURNAS	25	135.5	10	53.5
GAGE	82	121.7	20	28.6
GARDEN	15	176.0	2	**
GARFIELD	19	272.2	2	**
GOSPER	13	166.8	3	**
GRANT	3	**	--	--
GREELEY	22	230.1	2	**
HALL	228	180.4	34	28.4
HAMILTON	41	167.4	12	49.5
HARLAN	24	164.1	--	--
HAYES	2	**	1	**
HITCHCOCK	15	135.4	4	**
HOLT	73	199.9	8	21.5
HOOKER	5	**	1	**
HOWARD	35	187.3	8	44.0

TABLE 12: Prostate Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	36	126.2	8	26.3
JOHNSON	25	169.1	5	**
KEARNEY	29	156.1	4	**
KEITH	55	192.2	8	38.5
KEYA PAHA	1	**	5	**
KIMBALL	33	232.8	2	**
KNOX	75	220.7	11	29.2
LANCASTER	727	160.9	110	29.3
LINCOLN	118	133.2	26	32.1
LOGAN	1	**	--	--
LOUP	4	**	1	**
McPHERSON	5	**	--	--
MADISON	165	206.8	18	23.0
MERRICK	47	197.9	6	27.0
MORRILL	40	251.4	2	**
NANCE	21	155.6	3	**
NEMAHA	33	160.8	3	**
NUCKOLLS	16	▼81.3	5	**
OTOE	71	161.8	13	28.3
PAWNEE	19	146.7	3	**
PERKINS	16	165.4	2	**
PHELPS	44	158.9	7	24.2
PIERCE	33	147.3	5	**
PLATTE	133	182.2	20	29.5
POLK	21	114.3	7	31.1
RED WILLOW	45	130.5	12	35.7
RICHARDSON	54	167.8	15	44.4
ROCK	10	174.0	2	**
SALINE	62	170.8	5	**
SARPY	297	166.9	32	31.7
SAUNDERS	78	151.7	12	25.6
SCOTTS BLUFF	184	182.8	16	16.1
SEWARD	51	123.4	11	26.4
SHERIDAN	40	174.6	8	33.7
SHERMAN	25	219.0	3	**
SIOUX	2	**	--	--
STANTON	22	152.4	4	**
THAYER	49	218.0	4	**
THOMAS	2	**	--	--
THURSTON	28	178.9	5	**
VALLEY	30	175.8	5	**
WASHINGTON	66	152.5	9	24.4
WAYNE	30	141.5	3	**
WEBSTER	23	151.4	2	**
WHEELER	6	214.2	2	**
YORK	55	139.0	9	21.5

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 male population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 13: Urinary Bladder Cancer Incidence and Mortality

Numbers of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	21.3	NA	4.4
NEBRASKA	1,889	21.0	355	3.8
COUNTY				
ADAMS	42	23.5	8	4.5
ANTELOPE	6	12.3	2	**
ARTHUR	2	**	--	--
BANNER	--	--	--	--
BLAINE	1	**	1	**
BOONE	2	**	1	**
BOX BUTTE	21	29.2	5	**
BOYD	4	**	1	**
BROWN	5	**	1	**
BUFFALO	61	31.5	4	**
BURT	14	23.8	1	**
BUTLER	12	19.6	1	**
CASS	23	18.9	3	**
CEDAR	14	22.2	1	**
CHASE	3	**	--	--
CHERRY	5	**	--	--
CHEYENNE	21	36.2	--	--
CLAY	16	33.5	4	**
COLFAX	11	17.9	2	**
CUMING	15	20.1	3	**
CUSTER	24	26.0	4	**
DAKOTA	13	15.2	2	**
DAWES	13	27.5	2	**
DAWSON	28	21.1	6	4.7
DEUEL	2	**	--	--
DIXON	12	28.7	2	**
DODGE	47	19.9	10	3.8
DOUGLAS	398	19.3	86	4.2
DUNDY	5	**	2	**
FILLMORE	8	17.4	--	--
FRANKLIN	7	20.8	1	**
FRONTIER	2	**	--	--
FURNAS	10	21.1	1	**
GAGE	26	15.4	9	4.9
GARDEN	10	54.7	--	--
GARFIELD	2	**	1	**
GOSPER	6	37.0	--	--
GRANT	--	--	--	--
GREELEY	3	**	2	**
HALL	80	27.9	14	4.9
HAMILTON	14	24.7	1	**
HARLAN	8	24.8	3	**
HAYES	1	**	--	--
HITCHCOCK	5	**	--	--
HOLT	20	21.5	6	5.7
HOOKER	2	**	--	--
HOWARD	9	21.1	1	**

TABLE 13: Urinary Bladder Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	16	24.0	5	**
JOHNSON	6	17.3	3	**
KEARNEY	14	29.8	3	**
KEITH	16	25.7	2	**
KEYA PAHA	1	**	1	**
KIMBALL	7	20.8	2	**
KNOX	23	28.3	4	**
LANCASTER	221	20.9	37	3.5
LINCOLN	42	21.4	9	4.6
LOGAN	1	**	1	**
LOUP	--	--	--	--
McPHERSON	1	**	--	--
MADISON	54	27.1	13	5.7
MERRICK	16	27.6	5	**
MORRILL	13	38.3	1	**
NANCE	2	**	--	--
NEMAHA	4	**	1	**
NUCKOLLS	10	20.3	1	**
OTOE	21	19.6	7	5.5
PAWNEE	6	19.9	2	**
PERKINS	6	25.8	1	**
PHELPS	12	16.6	1	**
PIERCE	13	21.8	4	**
PLATTE	24	14.4	5	**
POLK	6	11.0	1	**
RED WILLOW	18	21.5	2	**
RICHARDSON	9	13.5	2	**
ROCK	2	**	1	**
SALINE	11	14.2	2	**
SARPY	85	22.5	13	4.3
SAUNDERS	8	▼6.7	4	**
SCOTTS BLUFF	78	33.9	15	6.1
SEWARD	16	16.6	4	**
SHERIDAN	8	19.1	1	**
SHERMAN	4	**	1	**
SIOUX	1	**	--	--
STANTON	6	18.5	--	--
THAYER	10	18.8	--	--
THOMAS	2	**	--	--
THURSTON	2	**	1	**
VALLEY	5	**	3	**
WASHINGTON	15	15.3	2	**
WAYNE	6	10.0	1	**
WEBSTER	9	21.4	3	**
WHEELER	3	**	--	--
YORK	23	24.9	--	--

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 14: Non-Hodgkin Lymphoma Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	19.4	NA	8.4
NEBRASKA	1,736	19.6	769	8.4
COUNTY				
ADAMS	29	16.0	16	8.3
ANTELOPE	11	21.0	6	10.1
ARTHUR	2	**	1	**
BANNER	--	--	--	--
BLAINE	--	--	--	--
BOONE	11	24.5	3	**
BOX BUTTE	13	18.2	8	11.1
BOYD	3	**	2	**
BROWN	7	25.6	3	**
BUFFALO	31	16.0	23	12.0
BURT	9	15.4	8	12.0
BUTLER	10	17.2	9	15.6
CASS	29	23.9	13	10.7
CEDAR	10	15.4	2	**
CHASE	5	**	3	**
CHERRY	15	38.7	3	**
CHEYENNE	12	20.1	9	14.2
CLAY	8	17.7	2	**
COLFAX	11	17.3	4	**
CUMING	9	13.5	2	**
CUSTER	19	23.2	5	**
DAKOTA	18	21.4	5	**
DAWES	7	14.9	3	**
DAWSON	23	17.3	9	6.9
DEUEL	3	**	--	--
DIXON	12	32.7	6	14.0
DODGE	41	18.5	23	9.2
DOUGLAS	402	19.1	170	8.3
DUNDY	5	**	1	**
FILLMORE	9	18.9	7	13.7
FRANKLIN	5	**	1	**
FRONTIER	4	**	1	**
FURNAS	11	27.4	4	**
GAGE	29	18.2	20	11.7
GARDEN	--	--	--	--
GARFIELD	4	**	--	--
GOSPER	7	45.3	--	--
GRANT	1	**	--	--
GREELEY	6	31.0	2	**
HALL	47	16.7	18	6.3
HAMILTON	10	20.0	7	13.0
HARLAN	6	20.8	7	22.0
HAYES	--	--	1	**
HITCHCOCK	4	**	4	**
HOLT	14	16.5	3	**
HOOKER	2	**	--	--
HOWARD	11	27.3	3	**

TABLE 14: Non-Hodgkin Lymphoma Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	17	27.7	11	15.3
JOHNSON	12	38.3	4	**
KEARNEY	2	**	4	**
KEITH	8	12.6	6	9.4
KEYA PAHA	1	**	2	**
KIMBALL	6	22.4	3	**
KNOX	8	10.2	4	**
LANCASTER	225	20.9	93	8.8
LINCOLN	41	21.4	10	4.8
LOGAN	--	--	--	--
LOUP	2	**	1	**
McPHERSON	--	--	--	--
MADISON	35	18.5	22	11.1
MERRICK	15	29.5	5	**
MORRILL	10	30.5	2	**
NANCE	3	**	2	**
NEMAHA	8	14.8	4	**
NUCKOLLS	13	32.6	7	15.7
OTOE	17	18.1	13	12.5
PAWNEE	5	**	6	23.8
PERKINS	3	**	3	**
PHELPS	12	17.8	8	12.1
PIERCE	16	33.3	6	11.0
PLATTE	30	18.2	15	8.6
POLK	5	**	3	**
RED WILLOW	13	18.0	4	**
RICHARDSON	11	18.8	5	**
ROCK	1	**	1	**
SALINE	18	21.7	7	7.2
SARPY	84	18.6	22	6.1
SAUNDERS	33	29.3	14	11.8
SCOTTS BLUFF	41	18.3	22	9.3
SEWARD	28	30.5	7	7.3
SHERIDAN	5	**	4	**
SHERMAN	8	37.3	3	**
SIOUX	1	**	--	--
STANTON	3	**	1	**
THAYER	14	27.4	4	**
THOMAS	--	--	--	--
THURSTON	5	**	1	**
VALLEY	3	**	4	**
WASHINGTON	22	23.1	11	11.2
WAYNE	10	21.8	1	**
WEBSTER	3	**	2	**
WHEELER	--	--	1	**
YORK	14	17.0	4	**

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 15: Leukemia Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	12.4	NA	7.6
NEBRASKA	1,140	12.7	741	8.0
COUNTY				
ADAMS	16	9.4	6	▼2.9
ANTELOPE	8	12.9	3	**
ARTHUR	--	--	--	--
BANNER	1	**	--	--
BLAINE	1	**	1	**
BOONE	5	**	3	**
BOX BUTTE	7	10.8	4	**
BOYD	3	**	2	**
BROWN	--	--	--	--
BUFFALO	23	12.2	15	7.7
BURT	7	12.2	7	9.6
BUTLER	10	19.2	6	10.1
CASS	14	11.5	7	5.7
CEDAR	8	12.9	5	**
CHASE	3	**	2	**
CHERRY	6	15.6	4	**
CHEYENNE	10	16.9	6	9.4
CLAY	5	**	5	**
COLFAX	9	14.7	8	11.3
CUMING	7	9.4	5	**
CUSTER	7	8.1	9	8.4
DAKOTA	13	13.4	7	8.0
DAWES	5	**	1	**
DAWSON	18	14.0	9	6.9
DEUEL	1	**	--	--
DIXON	9	21.9	5	**
DODGE	34	16.1	18	7.1
DOUGLAS	266	12.6	185	9.0
DUNDY	3	**	1	**
FILLMORE	6	12.1	4	**
FRANKLIN	4	**	1	**
FRONTIER	4	**	1	**
FURNAS	4	**	3	**
GAGE	17	11.0	7	3.6
GARDEN	1	**	2	**
GARFIELD	4	**	2	**
GOSPER	--	--	--	--
GRANT	--	--	--	--
GREELEY	1	**	2	**
HALL	34	11.9	24	8.1
HAMILTON	11	19.8	10	16.3
HARLAN	3	**	2	**
HAYES	--	--	--	--
HITCHCOCK	5	**	4	**
HOLT	10	12.3	5	**
HOOKER	2	**	--	--
HOWARD	10	23.1	9	19.8

TABLE 15: Leukemia Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	9	13.9	3	**
JOHNSON	5	**	4	**
KEARNEY	2	**	3	**
KEITH	5	**	5	**
KEYA PAHA	--	--	--	--
KIMBALL	4	**	2	**
KNOX	8	10.7	9	9.9
LANCASTER	147	13.6	89	8.3
LINCOLN	27	13.4	10	5.0
LOGAN	--	--	--	--
LOUP	--	--	--	--
McPHERSON	2	**	--	--
MADISON	30	15.5	16	7.5
MERRICK	6	11.7	3	**
MORRILL	2	**	2	**
NANCE	7	23.6	5	**
NEMAHA	6	13.0	5	**
NUCKOLLS	9	20.5	7	14.7
OTOE	8	7.6	5	**
PAWNEE	2	**	2	**
PERKINS	3	**	4	**
PHELPS	6	9.3	5	**
PIERCE	7	14.8	7	12.9
PLATTE	23	13.6	20	11.4
POLK	7	19.5	2	**
RED WILLOW	15	19.6	9	10.4
RICHARDSON	8	9.4	3	**
ROCK	1	**	1	**
SALINE	11	12.8	6	6.6
SARPY	57	13.7	29	7.5
SAUNDERS	4	**	6	5.3
SCOTTS BLUFF	19	8.8	17	7.3
SEWARD	17	18.7	12	12.8
SHERIDAN	3	**	5	**
SHERMAN	2	**	2	**
SIOUX	--	--	1	**
STANTON	3	**	3	**
THAYER	11	19.0	5	**
THOMAS	--	--	--	--
THURSTON	5	**	4	**
VALLEY	4	**	5	**
WASHINGTON	15	14.7	12	11.9
WAYNE	9	17.9	6	9.7
WEBSTER	5	**	1	**
WHEELER	1	**	1	**
YORK	10	10.7	5	**

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

▼ county rate significantly lower than the state rate

TABLE 16: Kidney and Renal Pelvis Cancer Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	12.0	NA	4.3
NEBRASKA	1,152	13.1	418	4.6
COUNTY				
ADAMS	31	17.5	11	6.4
ANTELOPE	5	**	1	**
ARTHUR	--	--	--	--
BANNER	1	**	--	--
BLAINE	--	--	--	--
BOONE	1	**	1	**
BOX BUTTE	9	14.2	4	**
BOYD	2	**	--	--
BROWN	3	**	--	--
BUFFALO	27	14.4	15	8.0
BURT	7	12.5	1	**
BUTLER	6	12.1	1	**
CASS	18	14.4	1	**
CEDAR	10	15.1	2	**
CHASE	3	**	3	**
CHERRY	6	15.7	5	**
CHEYENNE	6	11.1	2	**
CLAY	4	**	1	**
COLFAX	6	10.8	3	**
CUMING	14	20.5	4	**
CUSTER	8	9.8	3	**
DAKOTA	9	10.4	1	**
DAWES	4	**	1	**
DAWSON	10	8.1	7	5.5
DEUEL	1	**	1	**
DIXON	3	**	--	--
DODGE	27	12.8	6	2.4
DOUGLAS	317	15.1	115	5.5
DUNDY	1	**	2	**
FILLMORE	3	**	2	**
FRANKLIN	--	--	1	**
FRONTIER	4	**	2	**
FURNAS	10	25.4	4	**
GAGE	23	15.2	6	3.1
GARDEN	2	**	--	--
GARFIELD	1	**	--	--
GOSPER	1	**	1	**
GRANT	1	**	--	--
GREELEY	4	**	1	**
HALL	43	15.3	11	3.7
HAMILTON	7	12.7	4	**
HARLAN	1	**	--	--
HAYES	1	**	--	--
HITCHCOCK	6	23.5	2	**
HOLT	14	19.4	5	**
HOOKER	--	--	--	--
HOWARD	7	15.9	4	**

TABLE 16: Kidney and Renal Pelvis Cancer Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	3	**	3	**
JOHNSON	2	**	1	**
KEARNEY	4	**	3	**
KEITH	3	**	2	**
KEYA PAHA	1	**	--	--
KIMBALL	5	**	1	**
KNOX	8	11.9	4	**
LANCASTER	121	11.4	43	4.1
LINCOLN	17	9.1	7	3.5
LOGAN	1	**	1	**
LOUP	--	--	--	--
McPHERSON	--	--	--	--
MADISON	20	10.6	11	5.7
MERRICK	8	14.5	3	**
MORRILL	9	26.1	--	--
NANCE	4	**	2	**
NEMAHA	3	**	1	**
NUCKOLLS	8	19.1	5	**
OTOE	4	**	5	**
PAWNEE	4	**	2	**
PERKINS	3	**	--	--
PHELPS	8	13.0	2	**
PIERCE	9	18.4	2	**
PLATTE	20	12.2	6	3.4
POLK	3	**	3	**
RED WILLOW	4	**	1	**
RICHARDSON	17	26.1	4	**
ROCK	2	**	1	**
SALINE	9	11.8	4	**
SARPY	66	15.2	21	5.1
SAUNDERS	13	11.3	5	**
SCOTTS BLUFF	30	13.0	11	4.6
SEWARD	15	17.7	7	7.8
SHERIDAN	8	18.9	2	**
SHERMAN	3	**	2	**
SIOUX	--	--	--	--
STANTON	--	--	--	--
THAYER	4	**	2	**
THOMAS	--	--	--	--
THURSTON	9	28.4	5	**
VALLEY	2	**	1	**
WASHINGTON	16	16.1	5	**
WAYNE	5	**	--	--
WEBSTER	6	18.5	3	**
WHEELER	1	**	--	--
YORK	7	8.4	3	**

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 17: Melanoma of the Skin Incidence and Mortality

Number of Cases, Deaths, and Rates, By County of Residence, Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
US	NA	18.0	NA	2.7
NEBRASKA	1,255	14.5	249	2.8
COUNTY				
ADAMS	22	13.8	11	6.7
ANTELOPE	9	18.2	--	--
ARTHUR	--	--	--	--
BANNER	--	--	--	--
BLAINE	--	--	--	--
BOONE	5	**	3	**
BOX BUTTE	6	8.2	4	**
BOYD	2	**	1	**
BROWN	6	21.7	1	**
BUFFALO	23	12.4	5	**
BURT	1	**	--	--
BUTLER	7	13.6	--	--
CASS	17	13.7	6	5.0
CEDAR	9	16.0	--	--
CHASE	7	30.2	1	**
CHERRY	6	17.3	2	**
CHEYENNE	4	**	--	--
CLAY	1	**	--	--
COLFAX	9	17.0	4	**
CUMING	7	10.5	3	**
CUSTER	17	22.7	2	**
DAKOTA	16	17.5	4	**
DAWES	2	**	1	**
DAWSON	10	7.9	2	**
DEUEL	1	**	--	--
DIXON	4	**	5	**
DODGE	28	15.0	5	**
DOUGLAS	300	13.6	49	2.3
DUNDY	--	--	1	**
FILLMORE	6	17.7	2	**
FRANKLIN	--	--	--	--
FRONTIER	2	**	--	--
FURNAS	6	21.3	1	**
GAGE	23	16.2	7	5.1
GARDEN	--	--	--	--
GARFIELD	2	**	--	--
GOSPER	--	--	--	--
GRANT	3	**	1	**
GREELEY	2	**	--	--
HALL	38	13.7	8	2.7
HAMILTON	8	15.2	1	**
HARLAN	2	**	1	**
HAYES	--	--	1	**
HITCHCOCK	7	34.5	2	**
HOLT	11	14.0	3	**
HOOKER	1	**	--	--
HOWARD	5	**	--	--

TABLE 17: Melanoma of the Skin Incidence and Mortality
(Continued)
Number of Cases, Deaths, and Rates, By County of Residence,
Nebraska (1998-2002) and US (1997-2001)

	Incidence		Mortality	
	# Cases	Rate	# Deaths	Rate
COUNTY				
JEFFERSON	11	20.4	5	**
JOHNSON	3	**	--	--
KEARNEY	3	**	1	**
KEITH	10	20.7	4	**
KEYA PAHA	--	--	--	--
KIMBALL	3	**	2	**
KNOX	6	9.7	--	--
LANCASTER	204	17.7	31	2.9
LINCOLN	32	17.8	4	**
LOGAN	--	--	--	--
LOUP	--	--	1	**
McPHERSON	2	**	--	--
MADISON	23	13.1	5	**
MERRICK	8	18.6	1	**
MORRILL	2	**	2	**
NANCE	3	**	2	**
NEMAHA	11	26.1	1	**
NUCKOLLS	5	**	1	**
OTOE	14	17.7	5	**
PAWNEE	2	**	--	--
PERKINS	3	**	--	--
PHELPS	8	15.7	4	**
PIERCE	1	**	2	**
PLATTE	17	10.4	2	**
POLK	5	**	1	**
RED WILLOW	11	15.6	2	**
RICHARDSON	12	22.8	2	**
ROCK	1	**	--	--
SALINE	12	17.1	3	**
SARPY	96	19.6	14	3.8
SAUNDERS	13	12.4	--	--
SCOTTS BLUFF	37	16.7	7	3.0
SEWARD	14	17.6	3	**
SHERIDAN	5	**	--	--
SHERMAN	2	**	--	--
SIOUX	--	--	--	--
STANTON	1	**	--	--
THAYER	3	**	--	--
THOMAS	--	--	--	--
THURSTON	--	--	1	**
VALLEY	2	**	--	--
WASHINGTON	16	17.0	1	**
WAYNE	2	**	1	**
WEBSTER	5	**	--	--
WHEELER	--	--	--	--
YORK	12	16.1	4	**

NA – not available
**Rate not shown if based on five or fewer events.
Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. population

TABLE 18: Cancer Incidence (Invasive Cases Only)

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Central

	Number	Rate
All	1,869	482.6
Prostate	316	180.7
Breast	265	69.3
Lung & Bronchus	245	62.9
Colon & Rectum (Colorectal)	218	54.8
Urinary Bladder	110	27.5
Non-Hodgkins Lymphoma	72	18.9
Uterine Corpus & Unspecified (Endometrium)	63	31.3
Kidney & Renal Pelvis	58	14.9
Melanoma of the Skin	54	14.3
Leukemia	51	13.1

East Central

	Number	Rate
All	1,408	479.2
Breast	244	83.9
Prostate	242	184.3
Colon & Rectum (Colorectal)	209	68.6
Lung & Bronchus	161	54.6
Non-Hodgkin Lymphoma	55	18.6
Leukemia	44	14.4
Uterine Corpus & Unspecified (Endometrium)	40	26.0
Urinary Bladder	39	▼12.7
Oral Cavity & Pharynx	37	13.2
Ovary	36	24.7

Dakota County

	Number	Rate
All	411	481.0
Lung & Bronchus	72	86.1
Breast	61	70.5
Colon & Rectum (Colorectal)	59	70.2
Prostate	34	▼91.0
Non-Hodgkin Lymphoma	18	21.4
Melanoma of the Skin	16	17.5
Uterine Corpus & Unspecified (Endometrium)	14	29.3
Urinary Bladder	13	15.2
Leukemia	13	13.4
Brain & Other CNS	11	12.7

Elkhorn Logan Valley

	Number	Rate
All	1,613	462.0
Prostate	278	179.8
Breast	245	72.2
Colon & Rectum (Colorectal)	208	57.8
Lung & Bronchus	208	59.8
Urinary Bladder	89	24.0
Non-Hodgkin Lymphoma	56	16.1
Uterine Corpus & Unspecified (Endometrium)	52	29.2
Leukemia	47	13.1
Kidney & Renal Pelvis	41	11.8
Pancreas	34	9.2

Douglas County

	Number	Rate
All	10,210	488.5
Breast	1,657	▲78.4
Lung & Bronchus	1,582	▲77.1
Prostate	1,318	▼151.0
Colon & Rectum (Colorectal)	1,251	60.7
Non-Hodgkin Lymphoma	402	19.1
Urinary Bladder	398	19.3
Kidney & Renal Pelvis	317	15.1
Melanoma of the Skin	300	13.6
Uterine Corpus & Unspecified (Endometrium)	277	24.0
Leukemia	266	12.6

Four Corners

	Number	Rate
All	1,238	445.3
Breast	198	71.1
Colon & Rectum (Colorectal)	184	61.4
Prostate	173	136.9
Lung & Bronchus	134	▼46.8
Urinary Bladder	57	19.2
Non-Hodgkin Lymphoma	57	20.7
Uterine Corpus & Unspecified (Endometrium)	45	33.3
Leukemia	44	16.0
Melanoma of the Skin	38	15.7
Kidney & Renal Pelvis	31	12.3

TABLE 18: Cancer Incidence (Invasive Cases Only)

(Continued)

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Lincoln Lancaster County

	Number	Rate
All	5,215	483.0
Breast	861	79.1
Prostate	727	160.9
Lung & Bronchus	648	61.6
Colon & Rectum (Colorectal)	634	59.3
Non-Hodgkin Lymphoma	225	20.9
Urinary Bladder	221	20.9
Melanoma of the Skin	204	17.7
Uterine Corpus & Unspecified (Endometrium)	197	33.5
Leukemia	147	13.6
Kidney & Renal Pelvis	121	11.4

Northeast Nebraska

	Number	Rate
All	818	437.0
Prostate	138	162.0
Colon & Rectum (Colorectal)	122	60.6
Breast	104	56.0
Lung & Bronchus	91	48.4
Non-Hodgkin Lymphoma	37	20.5
Urinary Bladder	34	17.1
Leukemia	31	16.0
Uterine Corpus & Unspecified (Endometrium)	29	33.4
Kidney & Renal Pelvis	27	15.1
Multiple Myeloma	21	10.6

Loup Basin

	Number	Rate
All	1,053	444.5
Prostate	226	208.6
Colon & Rectum (Colorectal)	135	53.4
Breast	124	54.3
Lung & Bronchus	118	48.1
Non-Hodgkin Lymphoma	53	23.8
Urinary Bladder	51	19.9
Uterine Corpus & Unspecified (Endometrium)	37	28.3
Melanoma of the Skin	30	13.9
Leukemia	30	12.2
Kidney & Renal Pelvis	26	10.5

Panhandle

	Number	Rate
All	1,523	460.0
Prostate	311	202.5
Breast	207	64.9
Colon & Rectum (Colorectal)	190	54.6
Lung & Bronchus	183	53.2
Urinary Bladder	96	28.2
Non-Hodgkin Lymphoma	57	17.2
Kidney & Renal Pelvis	45	14.1
Uterine Corpus & Unspecified (Endometrium)	42	24.2
Oral Cavity & Pharynx	37	11.7
Leukemia	34	10.6

North Central

	Number	Rate
All	1,554	435.7
Prostate	286	172.1
Breast	220	62.9
Colon & Rectum (Colorectal)	215	59.2
Lung & Bronchus	168	▼45.2
Urinary Bladder	79	19.8
Non-Hodgkin Lymphoma	76	21.1
Uterine Corpus & Unspecified (Endometrium)	51	26.8
Kidney & Renal Pelvis	50	14.7
Leukemia	43	11.3
Melanoma of the Skin	42	12.5

Public Health Solutions

	Number	Rate
All	1,732	441.8
Breast	276	73.2
Prostate	269	153.5
Colon & Rectum (Colorectal)	240	57.5
Lung & Bronchus	182	▼44.7
Non-Hodgkin Lymphoma	87	21.5
Urinary Bladder	71	17.1
Uterine Corpus & Unspecified (Endometrium)	58	27.8
Melanoma of the Skin	55	16.3
Leukemia	54	13.1
Kidney & Renal Pelvis	42	11.3

TABLE 18: Cancer Incidence (Invasive Cases Only)

(Continued)

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Sarpy Cass

	Number	Rate
All	2,647	484.6
Breast	429	75.9
Prostate	376	158.3
Lung & Bronchus	354	67.8
Colon & Rectum (Colorectal)	280	56.8
Melanoma of the Skin	113	18.1
Non-Hodgkin Lymphoma	113	20.0
Urinary Bladder	108	21.5
Kidney & Renal Pelvis	84	14.9
Uterine Corpus & Unspecified (Endometrium)	74	24.6
Leukemia	71	12.6

Southeast

	Number	Rate
All	1,315	475.0
Colon & Rectum (Colorectal)	211	69.3
Breast	208	75.5
Prostate	202	164.4
Lung & Bronchus	159	56.3
Non-Hodgkin Lymphoma	53	20.1
Urinary Bladder	46	15.7
Melanoma of the Skin	42	18.6
Uterine Corpus & Unspecified (Endometrium)	39	26.5
Pancreas	31	10.7
Kidney & Renal Pelvis	30	11.5

Scotts Bluff County

	Number	Rate
All	1,038	458.5
Prostate	184	182.8
Breast	139	62.2
Lung & Bronchus	132	57.7
Colon & Rectum (Colorectal)	111	46.3
Urinary Bladder	78	33.9
Non-Hodgkin Lymphoma	41	18.3
Melanoma of the Skin	37	16.7
Uterine Corpus & Unspecified (Endometrium)	34	30.4
Oral Cavity & Pharynx	30	13.0
Kidney & Renal Pelvis	30	13.0

Southwest Nebraska

	Number	Rate
All	1,013	433.7
Prostate	153	142.1
Breast	133	60.4
Colon & Rectum (Colorectal)	126	50.9
Lung & Bronchus	117	48.2
Urinary Bladder	50	19.9
Non-Hodgkin Lymphoma	45	19.0
Leukemia	37	15.4
Melanoma of the Skin	36	17.9
Uterine Corpus & Unspecified (Endometrium)	35	28.6
Kidney & Renal Pelvis	32	12.5

South Heartland

	Number	Rate
All	1,331	447.2
Lung & Bronchus	193	63.8
Breast	187	63.8
Prostate	182	137.7
Colon & Rectum (Colorectal)	171	54.7
Urinary Bladder	77	24.7
Non-Hodgkin Lymphoma	53	17.6
Kidney & Renal Pelvis	49	16.6
Uterine Corpus & Unspecified (Endometrium)	42	27.7
Oral Cavity & Pharynx	37	12.8
Pancreas	37	12.0

Three Rivers

	Number	Rate
All	2,015	467.4
Prostate	335	173.8
Breast	310	73.4
Colon & Rectum (Colorectal)	301	67.4
Lung & Bronchus	258	58.9
Non-Hodgkin Lymphoma	96	22.1
Urinary Bladder	70	15.3
Melanoma of the Skin	57	14.7
Kidney & Renal Pelvis	56	13.0
Uterine Corpus & Unspecified (Endometrium)	55	24.5
Leukemia	53	12.2

TABLE 18: Cancer Incidence (Invasive Cases Only)
(Continued)
Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Two Rivers

	Number	Rate
All	2,170	440.6
Prostate	378	173.8
Breast	338	69.4
Lung & Bronchus	273	55.8
Colon & Rectum (Colorectal)	266	52.5
Urinary Bladder	136	26.2
Non-Hodgkin Lymphoma	86	17.0
Oral Cavity & Pharynx	57	11.9
Leukemia	56	11.6
Pancreas	55	10.7
Uterine Corpus & Unspecified (Endometrium)	53	20.0

West Central

	Number	Rate
All	1,321	468.5
Breast	196	70.4
Prostate	192	146.7
Lung & Bronchus	181	62.7
Colon & Rectum (Colorectal)	164	55.8
Urinary Bladder	66	23.2
Non-Hodgkin Lymphoma	54	19.4
Melanoma of the Skin	48	19.0
Uterine Corpus & Unspecified (Endometrium)	41	28.2
Leukemia	36	12.4
Oral Cavity & Pharynx	25	8.7

* Area covered by each health department is shown on page 70.

▼ local rate significantly lower than the state rate
▲ local rate significantly higher than the state rate

Excluding gender-specific sites, all rates are expressed per 100,000 population, and are age-adjusted to the 2000 U.S. population.

Rates for gender-specific sites (prostate, endometrium, ovary) are expressed per 100,000 male or female population, and are age-adjusted to the 2000 U.S. population.

TABLE 19: Cancer Mortality

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Central

	Number	Rate
All	709	176.8
Lung & Bronchus	193	49.2
Colon & Rectum (Colorectal)	91	22.1
Prostate	52	31.5
Breast	37	9.2
Leukemia	37	8.9
Pancreas	33	8.0
Non-Hodgkin Lymphoma	30	7.6
Ovary	22	10.1
Urinary Bladder	20	4.9
Brain & Other CNS	18	4.9

East Central

	Number	Rate
All	548	175.8
Lung & Bronchus	125	41.9
Colon & Rectum (Colorectal)	79	24.8
Breast	39	12.4
Prostate	36	28.8
Leukemia	36	11.1
Pancreas	25	7.7
Non-Hodgkin Lymphoma	24	7.4
Ovary	16	9.5
Brain & Other CNS	15	5.3
Esophagus	13	4.1

Dakota County

	Number	Rate
All	180	215.8
Lung & Bronchus	59	71.7
Colon & Rectum (Colorectal)	24	29.0
Breast	13	15.7
Pancreas	10	12.0
Prostate	9	31.3
Leukemia	7	8.0
Brain & Other CNS	6	6.7
Ovary	5	**
Non-Hodgkin Lymphoma	5	**
Melanoma of the Skin	4	**

Elkhorn Logan Valley

	Number	Rate
All	655	177.7
Lung & Bronchus	179	51.0
Colon & Rectum (Colorectal)	66	17.8
Breast	43	12.0
Pancreas	41	11.0
Prostate	39	25.0
Non-Hodgkin Lymphoma	33	8.9
Leukemia	31	7.9
Multiple Myeloma	19	4.9
Urinary Bladder	17	3.9
Ovary	16	8.6

Douglas County

	Number	Rate
All	4,255	▲206.7
Lung & Bronchus	1,249	▲61.0
Colon & Rectum (Colorectal)	462	22.5
Breast	342	16.4
Pancreas	231	11.3
Prostate	207	28.4
Leukemia	185	9.0
Non-Hodgkin Lymphoma	170	8.3
Kidney & Renal Pelvis	115	5.5
Esophagus	103	5.0
Brain & Other CNS	97	4.6

Four Corners

	Number	Rate
All	507	170.6
Lung & Bronchus	112	37.8
Colon & Rectum (Colorectal)	76	24.7
Prostate	35	26.5
Breast	29	9.4
Pancreas	27	9.1
Leukemia	25	8.9
Non-Hodgkin Lymphoma	23	7.9
Ovary	22	13.1
Brain & Other CNS	17	6.5
Kidney & Renal Pelvis	14	5.0

TABLE 19: Cancer Mortality

(Continued)

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Lincoln Lancaster County

	Number	Rate
All	2,022	190.2
Lung & Bronchus	545	51.8
Colon & Rectum (Colorectal)	227	21.3
Breast	162	15.0
Prostate	110	29.3
Pancreas	96	9.1
Non-Hodgkin Lymphoma	93	8.8
Leukemia	89	8.3
Brain & Other CNS	65	6.1
Ovary	55	9.0
Kidney & Renal Pelvis	43	4.1

Northeast Nebraska

	Number	Rate
All	309	▼153.5
Lung & Bronchus	68	▼35.0
Colon & Rectum (Colorectal)	39	19.2
Prostate	23	26.8
Leukemia	20	9.6
Pancreas	15	6.6
Breast	15	▼7.0
Multiple Myeloma	15	6.9
Non-Hodgkin Lymphoma	10	5.0
Stomach	9	4.2
Uterine Corpus & Unspecified (Endometrium)	9	7.1

Loup Basin

	Number	Rate
All	419	▼158.4
Lung & Bronchus	91	▼35.7
Colon & Rectum (Colorectal)	50	19.6
Breast	35	14.1
Prostate	35	29.7
Leukemia	31	11.5
Ovary	21	14.4
Non-Hodgkin Lymphoma	19	7.5
Pancreas	14	▼4.7
Urinary Bladder	13	4.4
Kidney & Renal Pelvis	11	4.3

Panhandle

	Number	Rate
All	625	177.9
Lung & Bronchus	165	47.1
Colon & Rectum (Colorectal)	65	17.7
Prostate	43	28.8
Breast	42	12.4
Pancreas	30	8.5
Non-Hodgkin Lymphoma	29	8.2
Leukemia	23	6.2
Esophagus	15	4.6
Stomach	15	4.1
Ovary	13	7.2

North Central

	Number	Rate
All	654	169.9
Lung & Bronchus	142	▼36.7
Colon & Rectum (Colorectal)	93	23.6
Breast	43	12.2
Prostate	41	23.2
Pancreas	37	9.4
Leukemia	31	7.7
Non-Hodgkin Lymphoma	30	7.3
Brain & Other CNS	26	8.1
Urinary Bladder	20	4.3
Kidney & Renal Pelvis	18	4.8

Public Health Solutions

	Number	Rate
All	755	175.0
Lung & Bronchus	172	41.6
Colon & Rectum (Colorectal)	91	19.8
Breast	56	13.2
Non-Hodgkin Lymphoma	49	11.0
Pancreas	47	11.0
Prostate	43	22.8
Leukemia	25	5.2
Brain & Other CNS	24	5.9
Ovary	22	10.1
Esophagus	21	4.9

TABLE 19: Cancer Mortality

(Continued)

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Sarpy Cass

	Number	Rate
All	917	184.1
Lung & Bronchus	273	53.3
Colon & Rectum (Colorectal)	99	21.3
Breast	69	13.5
Pancreas	51	10.2
Prostate	41	28.6
Leukemia	36	6.8
Non-Hodgkin Lymphoma	35	7.6
Brain & Other CNS	33	5.9
Ovary	28	10.1
Multiple Myeloma	24	4.9

Southeast

	Number	Rate
All	579	196.3
Lung & Bronchus	136	47.4
Colon & Rectum (Colorectal)	79	24.5
Prostate	39	29.8
Breast	38	12.7
Pancreas	36	12.8
Non-Hodgkin Lymphoma	32	10.7
Leukemia	19	6.8
Brain & Other CNS	17	6.0
Urinary Bladder	15	4.8
Liver & Intrahepatic Bile Duct	13	4.9

Scotts Bluff County

	Number	Rate
All	416	175.4
Lung & Bronchus	110	46.7
Colon & Rectum (Colorectal)	50	20.2
Breast	26	11.4
Non-Hodgkin Lymphoma	22	9.3
Pancreas	19	7.8
Leukemia	17	7.3
Prostate	16	16.1
Urinary Bladder	15	6.1
Stomach	12	5.0
Brain & Other CNS	12	5.4

Southwest Nebraska

	Number	Rate
All	451	179.9
Lung & Bronchus	100	41.0
Colon & Rectum (Colorectal)	47	18.4
Prostate	39	36.0
Breast	36	14.6
Leukemia	24	8.5
Pancreas	23	8.8
Non-Hodgkin Lymphoma	21	8.1
Kidney & Renal Pelvis	14	5.9
Esophagus	11	4.5
Brain & Other CNS	11	5.5

South Heartland

	Number	Rate
All	573	179.6
Lung & Bronchus	153	49.2
Colon & Rectum (Colorectal)	80	23.7
Pancreas	37	11.3
Prostate	35	26.1
Breast	34	11.4
Non-Hodgkin Lymphoma	27	8.2
Kidney & Renal Pelvis	20	6.9
Ovary	19	9.5
Leukemia	19	5.6
Urinary Bladder	16	5.1

Three Rivers

	Number	Rate
All	825	182.1
Lung & Bronchus	209	47.2
Colon & Rectum (Colorectal)	108	23.2
Breast	71	15.8
Pancreas	51	11.3
Non-Hodgkin Lymphoma	48	10.3
Prostate	41	23.2
Leukemia	36	7.6
Ovary	23	9.2
Esophagus	22	4.9
Brain & Other CNS	22	5.2

TABLE 19: Cancer Mortality

(Continued)

Number of Cases and Rates, All Sites and Top Ten Sites, by Place of Residence
(local public health department areas of coverage*), 1998-2002

Two Rivers

	Number	Rate
All	926	180.5
Lung & Bronchus	244	49.2
Colon & Rectum (Colorectal)	116	21.9
Breast	70	13.5
Prostate	55	25.2
Non-Hodgkin Lymphoma	52	10.2
Pancreas	47	8.9
Leukemia	35	6.6
Kidney & Renal Pelvis	29	5.8
Esophagus	28	5.6
Ovary	27	10.0

West Central

	Number	Rate
All	560	191.2
Lung & Bronchus	147	50.5
Colon & Rectum (Colorectal)	56	18.8
Breast	50	17.4
Prostate	35	29.6
Pancreas	30	10.0
Non-Hodgkin Lymphoma	17	5.7
Uterine Corpus & Unspecified (Endometrium)	15	10.0
Leukemia	15	5.2
Multiple Myeloma	14	4.8
Brain & Other CNS	13	4.7

* Area covered by each health department is shown on page 70.

**Rate not shown if based on five or fewer events.

▼ local rate significantly lower than the state rate
▲ local rate significantly higher than the state rate

Excluding gender-specific sites, all rates are expressed per 100,000 population, and are age-adjusted to the 2000 U.S. population.

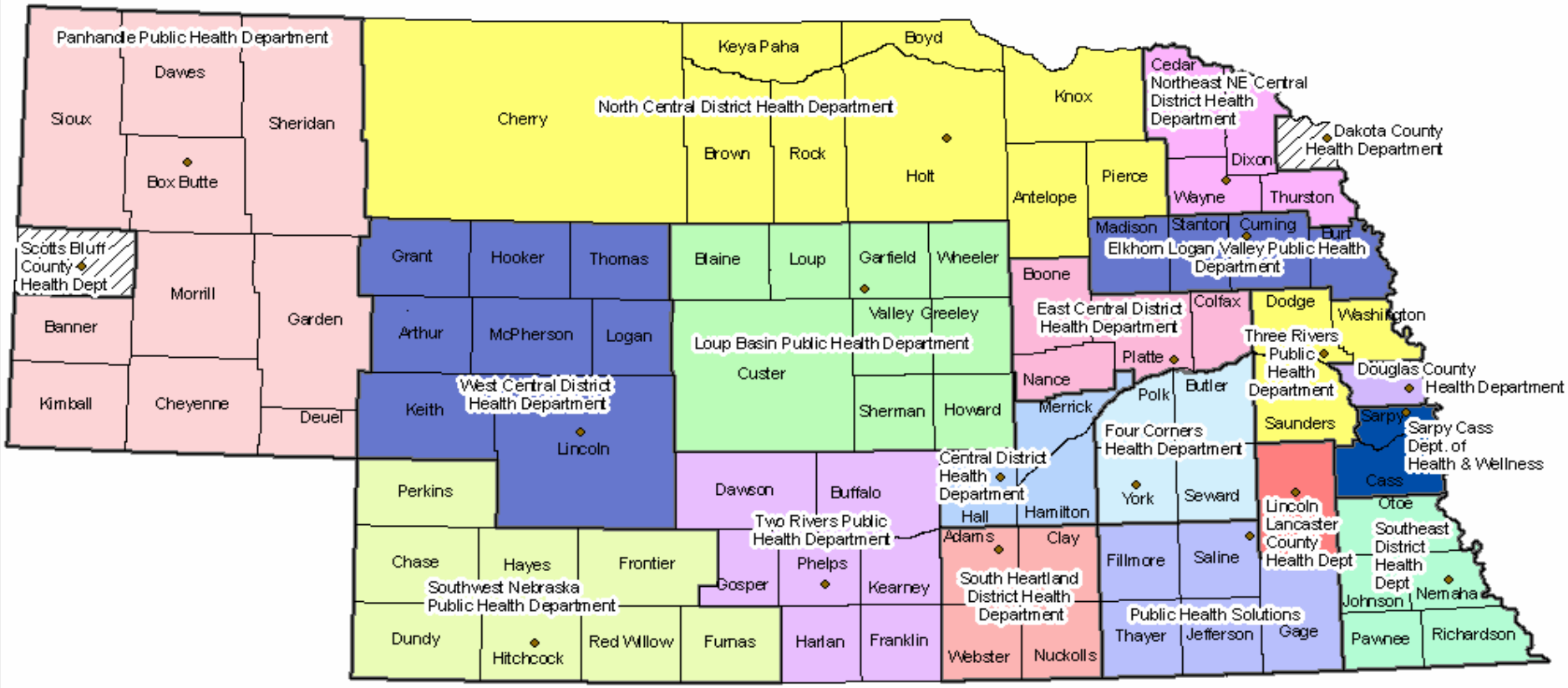
Rates for gender-specific sites (prostate, endometrium, ovary) are expressed per 100,000 male or female population, and are age-adjusted to the 2000 U.S. population.

Local Public Health Department Definitions/Areas of Coverage

#	Health Department	County Name
1	Central	Hall, Hamilton, Merrick
2	Dakota County	Dakota
3	Douglas County	Douglas
4	East Central	Boone, Colfax, Nance, Platte
5	Elkhorn Logan Valley	Burt, Cuming, Madison, Stanton
6	Four Corners	Butler, Polk, Seward, York
7	Lincoln-Lancaster County	Lancaster
8	Loup Basin	Blaine, Custer, Garfield, Greeley, Howard, Loup, Sherman, Valley, Wheeler
9	North Central	Antelope, Boyd, Brown, Cherry, Holt, Keya Paha, Knox, Pierce, Rock
10	Northeast Nebraska	Cedar, Dixon, Thurston, Wayne
11	Panhandle	Banner, Box Butte, Cheyenne, Dawes, Deuel, Garden, Kimball, Morrill, Sheridan, Sioux
12	Public Health Solution	Fillmore, Gage, Jefferson, Saline, Thayer
13	Sarpy Cass	Cass, Sarpy
14	Scotts Bluff County	Scotts Bluff
15	South Heartland	Adams, Clay, Nuckolls, Webster
16	Southeast	Johnson, Nemaha, Otoe, Pawnee, Richardson
17	Southwest Nebraska	Chase, Dundy, Frontier, Furnas, Hayes, Hitchcock, Perkins, Red Willow,
18	Three Rivers	Dodge, Saunders, Washington
19	Two Rivers	Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney, Phelps
20	West Central	Arthur, Grant, Hooker, Keith, Lincoln, Logan, McPherson, Thomas

Nebraska Local Public Health Departments

Last Updated: October 2004



Color-coded areas represent Local Public Health Departments eligible under the Nebraska Health Care Funding Act

Counties covered by Local Health Departments but do not qualify for LB 692 funding

REFERENCES

American Cancer Society. Cancer Facts and Figures – 2004. Atlanta: American Cancer Society, 2004.

American Cancer Society: Prevention and Early Detection. Available at: http://www.cancer.org/docroot/PED/ped0.asp

American Cancer Society: Cancer Reference Information—All About Kidney Cancer. Available at: http://www.cancer.org/docroot/CRI/CRI_2x.asp?sitearea=&dt=22

Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin L, Parkin DM, Whelan S. International Classification of Diseases for Oncology, 3rd edition (US interim version 2000). Geneva, Switzerland: World Health Organization, 2000.

Godfrey K: Comparing the means of several groups. New England Journal of Medicine 313 (23):1450-6, 1985.

Harras A (ed.): Cancer Rates and Risks, 4th edition. Bethesda, MD: National Cancer Institute, 1996; NIH Publication #96-691.

Nebraska Health and Human Services System: Nebraska Vital Statistics Report(s), 1959-2002. Lincoln, NE: Nebraska Department of Health/Nebraska Health and Human Services System, 1960-2003.

Percy C, Van Holten V, Muir C: International Classification of Diseases for Oncology, 2nd edition. Geneva, Switzerland: World Health Organization, 1990.

Ries LAG, Eisner MP, Kosay CL, Hankey BF, Miller BA, et. al. (eds.). SEER Cancer Statistics Review, 1975-2001. Bethesda, MD: National Cancer Institute, 2004. Available at: http://seer.cancer.gov/csr/1975_2001

Surveillance, Epidemiology, and End Results (SEER) Program: SEER*Stat Database: Incidence—SEER 9 Regs Public-Use, Nov 2003 Sub (1973-2001), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2004, based on the November 2003 submission. Available at: http://seer.cancer.gov/canques/

Surveillance, Epidemiology, and End Results (SEER) Program: SEER*Stat Database: Mortality—All COD, Public-Use with State, Total U.S. (1969-2001), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2004. Available at: http://seer.cancer.gov/canques/

World Health Organization: Manual of the International Statistical Classification of Diseases and Related Health Problems, 10th revision. Geneva, Switzerland: World Health Organization, 1992.

World Health Organization: Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, 9th revision. Geneva, Switzerland: World Health Organization, 1977.

Participants in the Nebraska Cancer Registry
(City--Facility)

Ainsworth--Brown County Hospital
Albion--Boone County Health Center
Alliance--Box Butte General Hospital
Alma--Harlan County Health System
Atkinson--West Holt Memorial Hospital, Inc.
Auburn--Nemaha County Hospital
Aurora--Memorial Hospital
Bassett--Rock County Hospital
Beatrice--Beatrice Community Hosp. & Hlth. Ctr., Inc.
Benkelman--Dundy County Hospital
Blair--Memorial Community Hospital
Bridgeport--Morrill County Community Hospital
Broken Bow--Jennie Melham Memorial Medical Ctr.
Callaway--Callaway District Hospital
Cambridge--Tri Valley Health System
Central City--Litzenberg Memorial County Hospital
Chadron--Chadron Community Hosp. & Hlth. Svcs.
Columbus--Columbus Community Hospital, Inc.
Cozad--Cozad Community Hospital
Creighton--Creighton Area Health Services
Crete--Crete Area Medical Center
David City--Butler County Health Care Center
Fairbury--Jefferson Community Health Center, Inc.
Falls City--Community Medical Center, Inc.
Franklin--Franklin County Memorial Hospital
Fremont--Fremont Area Medical Center
Friend--Warren Memorial Hospital
Geneva--Fillmore County Hospital
Genoa--Genoa Community Hospital/LTC
Gordon--Gordon Memorial Hospital District
Gothenburg--Gothenburg Memorial Hospital
Grand Island--St. Francis Medical Center
Grant--Perkins County Health Services
Hastings--Mary Lanning Memorial Hospital
Hebron--Thayer County Health Services
Henderson--Henderson Health Care Services
Holdrege--Phelps Memorial Health Center
Imperial--Chase County Community Hospital
Kearney--Good Samaritan Hospital
Kearney--Good Samaritan Hospital Pathology
Kimball--Kimball County Hospital
Lexington--Tri-County Area Hospital District
Lincoln--Bryan-LGH Medical Center East & West
Lincoln--Saint Elizabeth Regional Medical Center
Lincoln--Pathology Medical Services
Lincoln--Williamsburg Radiation Center
Lynch--Niobrara Valley Hospital Corp.
McCook--Community Hospital
Minden--Kearney County Health Services
Nebraska City--St. Mary's Hospital
Neligh--Antelope Memorial Hospital
Norfolk--Faith Regional Health Services East & West
North Platte--Great Plains Regional Medical Center
North Platte--Pathology Services
Oakland--Oakland Memorial Hospital
Offutt AFB--Ehrling Berquist Hospital
Ogallala--Ogallala Community Hospital
Omaha--Alegent Health - Bergan Mercy Medical Ctr.
Omaha--Alegent Health - Immanuel Medical Center
Omaha--Children's Hospital
Omaha--Methodist Hospital Pathology Center
Omaha--Nebraska Medical Center
Omaha--The Nebraska Methodist Hospital
Omaha--St. Joseph Hospital
Omaha--Dept. of Veteran's Affairs Medical Center
Omaha--Bergan Mercy Medical Ctr. Pathology
Omaha--Bishop Clarkson Hospital Pathology
Omaha--Creighton Pathology Associates
Omaha--Nichols Institute
Omaha--Physicians Lab
O'Neill--Avera St. Anthony's Hospital
Ord--Valley County Hospital
Osceola--Annie Jeffrey Memorial County Hlth. Ctr.
Oshkosh--Garden County Health Services
Osmond--Osmond General Hospital
Papillion--Alegent Health Midlands Community Hosp.
Pawnee City--Pawnee County Memorial Hospital
Pender--Pender Community Hospital
Plainview--Plainview Area Health System
Red Cloud--Webster County Community Hospital
Schuyler--Alegent Health Memorial Hospital
Scottsbluff--Regional West Medical Center
Scottsbluff--Western Pathology Consultants
Seward--Memorial Hospital
Sidney--Memorial Health Center
St. Paul--Howard County Community Hospital
Superior--Brodstone Memorial Hospital
Syracuse--Community Memorial Hospital
Tecumseh--Johnson County Hospital
Tilden--Tilden Community Hospital
Valentine--Cherry County Hospital
Wahoo--Saunders County Health Services
Wayne--Providence Medical Center
West Point--St. Francis Memorial Hospital
Winnebago--USPHS Indian Hospital
York--York General Hospital

Other States:
Rapid City, SD--Rapid City Regional Hospital
Sioux Falls, SD--Sioux Valley Hospital
Yankton, SD--Sacred Heart Hospital
Sioux City, IA--Mercy Medical Center

State cancer registries of Colorado, Iowa, Kansas, Missouri, South Dakota, and Wyoming

THE NEBRASKA HEALTH AND HUMAN SERVICES SYSTEM
IS COMMITTED TO AFFIRMATIVE ACTION/
EQUAL EMPLOYMENT OPPORTUNITIES AND DOES NOT
DISCRIMINATE IN DELIVERING BENEFITS OR SERVICES.
AA/EOE/ADA

NEBRASKA HEALTH AND HUMAN SERVICES SYSTEM